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WILLIAM WILKINS, R.A., AND HIS FAMILY, from a painting by A. E. Chalon of about 1824, in the possession of Mr. Vaughan Wilkins

Mr. Gavin Walkley [A.], through whose researches and the kindness of the owner we are enabled to publish this charming picture of the Wilkins family in Caroline dress, points out that it represents him in his most prosperous and happiest years of lavish entertainment in his London house in Weymouth Street and at the Norwich Theatre Royal, which he designed and owned. Wilkins was an enthusiastic patron of the Theatre, besides being architect and classical scholar, university don and Fellow of the Royal Society; he owned the Norwich Theatre Royal and had controlling interests in theatres at Yarmouth, Bury, Colchester, Ipswich and Cambridge.

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STUDENTS R.I.B.A. AND THE MILITARY TRAINING ACT

The Council have decided that contributions of Students R.I.B.A. shall be remitted during their period of service under the Military Training Act. It will be necessary for a Student who has been or is about to be called up for military service under the Act to make formal application for the remission of his contribution. The application should be accompanied by his calling-up notice or similar evidence. In the event of a Student called up under the Act having already paid his contribution for the current year, this will not be refunded but credited to him as his contribution for the following year.

NATIONAL REGISTER

The Royal Institute has received a letter from the Ministry of Labour enclosing a copy of the following Question and Answer in the House of Commons on the subject of the Central Register.

MR. PICKTHORN asked the Minister of Labour if he would give the number of persons who had enrolled in each of the main categories of the Central Register of persons with scientific, technical, professional and higher administrative qualifications; whether these numbers were regarded as adequate; and the extent to which the register was being used in peace time.

To this MR. ERNEST BROWN replied: The numbers of volunteers enrolled in the main categories of the Central Register on 22 July were as follows:—

Scientific Research	6,456
Industrial Chemistry	4,743
General Engineering	20,907
Mining and Metallurgy	1,972
Accountancy	14,341
Architectural and Public Utilities	17,075
Universities and Teaching	4,617
Administration and Management	6,297
Linguists	1,299
Others	2,619
Total	80,326

The response has, in the main, been satisfactory, but some employers in certain of the more important categories have been reluctant to allow qualified members of their staff to volunteer. It is thought that this may be due to a misconception of the use to which the Register would be put in war time. Machinery will then exist to determine priorities of national importance between different classes of work, and before volunteers already in employment are submitted for alternative posts, the observations of their employers will be carefully considered by expert Committees appointed for the purpose. It is, therefore, hoped that in the national interest employers will encourage their qualified staffs to enrol on the Register so that it may be equal to the calls made upon it in the event of war. It is to be remembered also that the Register will be available in war time for the use of employers as well as of Government Departments, and that in certain circumstances they may find it of great use for securing replacements of staff.

As the Register is intended as a pool from which to draw qualified persons in war time, volunteers should not expect to be allocated to specific posts in advance of an emergency, although it is proving possible to do this in a comparatively small number of cases.

A.R.P. : THE CIVIL DEFENCE BILL

The Civil Defence Bill has now passed into law, and copies of it are obtainable from the Stationery Office, price 2s. 2d. post free. The Building Code attached to the Bill, which has been already issued in a "Draft Provisional" form, is now in process of being revised, and will be published shortly. The A.R.P. Committee of the R.I.B.A. are particularly anxious to have reported to them by members cases in which difficulties are being experienced in applying the Code. The A.R.P. Department of the Home Office have sought the Committee's advice on the drafts of both the Provisional and Revised Codes, and have asked the Committee for observations on their working, so that administrative and technical difficulties may be smoothed out as rapidly as possible.

The Committee understand that where shelter works have been begun or already completed under the Draft Provisional Code, that such shelters will rank for grant, notwithstanding the fact that they may contravene in some respects the terms of the Revised Code. The machinery for sanctions and grants in respect of shelters in commercial buildings has not yet been established. In the case of factories, application must be made to the local factory inspectors. It should be realised, however, that the Act is retrospective in making eligible for grant shelter works already completed, provided they comply with the terms of the Draft Provisional Code. The Committee also have represented to the Home Office the urgent need for establishing procedure under the Civil Defence Bill as quickly as possible.

THE ROME SCHOLARSHIP

The Rome Scholarship in Architecture, 1938, has been awarded to Mr. Ralph Cowan, of the School of Architecture, Edinburgh College of Art. The Faculty of Architecture of the British School at Rome, who make the award, have also commended the plan presented by Mr. R. W. Cave, formerly of the Bartlett School of Architecture, University College, London.

The Rome Scholarship in Architecture is now provided for by an annual grant made to the British School at Rome by the Council of the Royal Institute of British Architects, and is normally tenable for two years, but may be prolonged in exceptional cases for a third year.

C.P.I.A. CONGRESS

We have now received the final bulletin of arrangements for the Fifteenth International Congress of Architects, which is being held in Washington between 24 September and 4 October. There is a strong delegation from the R.I.B.A., including Mr. Goodhart-Rendel, Sir Raymond Unwin, Mr. T. Forbes MacLennan, President of the Royal Incorporation of Architects in Scotland, Mr. John J. Robinson, President of the Royal Institute of the Architects of Ireland, Mr. Curtis Green, R.A., and Lt.-Col. H. P. Cart de Lafontaine. The following is the programme of meetings :—

First Session, 26 September

Theme I : *Planning and Development of Rural Districts.*

(a) A unit of land ownership, a farm, the first element in agricultural production. (b) A country town, the group of buildings created by local, social and economic needs. (c) A rural district, the region affected by all the economic problems of the State or country. Chairman : Emile Maigrot.

Theme II : *The Relation between Population Density and Built-up Area.* (a) Low buildings and high coverage.

(b) High buildings and low coverage. Chairman : Professor Alberto Calza Bini.

Second Session, 26 September

Etude A : *The Architect's Copyright.*

Third Session, 27 September

Theme III : *Contemporary Architecture Compared to the Architecture of the Past.* (a) From the technical point of view. (b) From the æsthetic point of view. (c) From the social point of view. Chairman : W. Curtis Green, R.A.

Fourth Session, 27 September

Etude B : *Comparison of the Remuneration Received by Architects in the Different Countries.*

Fifth Session, 28 September

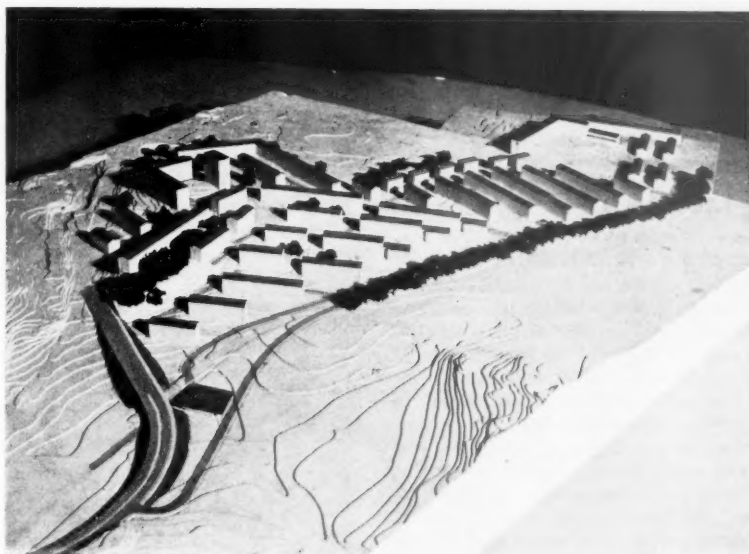
Theme IV : *Consequence of the Participation by Government, whether Federal or Local, and/or by Private Enterprise, in the Preparation of Plans and the Carrying Out of Building Operations.* Chairman : Dr. Frederico E. Mariscal.

Theme V : *Should Public Authority be Vested with Power to Reject Plans as Artistically Unsatisfactory rather than as at present for Purely Technical Reasons only?* Chairman : Henri Labelle.

In addition to the discussions, the programme includes visits and receptions and exhibitions which will lavishly engage the full time of the members of the conference. It is not too late to join, and those who wish to do so should communicate with the Hon. Secretary of the British Section, Lt.-Col. H. P. Cart de Lafontaine, 11 Suffolk Street, S.W.1.

LONDON-IN-YOUR-POCKET

Hugh Casson's guide to the New Sights of London which London Transport published a year ago now has a new architectural companion in the London-in-your-pocket series—this is Elizabeth Montizambert's *London Adventure*, a guide for children to the museums and buildings and worthies of London, charmingly conceived and most successfully carried out. The scheme of the book is based on the enthusiasms of a boy Michael and his friends to learn about famous people, Wolfe, Faraday, Queen Elizabeth, or foreign countries. As each subject is proposed, off set Michael, his friends and their not too avuncular guide to track down everything that London can show in museums, portraits, architecture or objects which will tell them about their hero. And excellent fun it all is, but even if it wasn't the book would be worth buying, and indeed is worth buying, even by people who have no intention of tracking down the local evidences of Wolfe and the others, for Raymond McGrath's twenty elegant drawings. McGrath is, perhaps, the best architectural draughtsman in England now, and it is obviously enormously flattering to someone or other that it should be considered right and worth while to use him to illustrate a popular sixpenny. Another new and no less delightful booklet in the same series is by Marjorie Quennell [*Hon.A.*] on *London Craftsmen*, a guide to the things made in London in the past, which is both popular and useful for pundits for the clear and accurate information about many of the lesser known museums.



Layout model submitted to the Town Planning Committee at Gothenburg

THE ADMINISTRATIVE ASPECT OF HOUSING IN SWEDEN

By MAX LOCK [A.]

A refreshing review of current building in Sweden appeared in the contributions to the R.I.B.A. JOURNAL of 9 January and 6 February of this year, where attention was drawn to the essential sanity of the Swedes in their approach to building.

Sweden is the country where we expect to find the environment of an informed and cultured democracy, producing an architecture of the people for the people. Buildings that are not merely "rational" and "organic" (the well-worn qualities of contemporary éliténess), but which above all things are *personal* and simply serve their human and social purpose, now, without any effort to become great or contemporary.

Much of their architecture happens to be great because the people have been properly educated at school to discriminate between good and bad, and to demand the best. It is the people who are great. *As great as their buildings.*

What is it that has made the Swedes so integrated that we envy them? Not only is their architecture free from extraneous crudeness, so that they shave off

the more shameful excrescences of their 19th century Parliament building, while we spend £1,000,000 to replace them on ours, but also they have trimmed their systems of administration to slick and smooth-working proportions. How have they learned to do this?

Sweden is isolated geographically from disintegrating European influences. She has escaped the chaos of individualistic industrial expansion in the 19th century—reaping her share of the harvest from the industrial revolution in the clean, more technically wasteless "neotechnic" twentieth century.

She has kept herself out of war for 123 years, but not without painful internal struggle.

The fortune and discipline of these things has given the Swedes a remarkable balance—a balance between monarchy and socialism, between the municipality and private enterprise, between legal restrictions and human needs.

And it is true to say that powers in Sweden seldom overrule, but rule by means of a just compromise based on the practice of tolerance and moderation, a subject

of great interest in itself which Marquis Childs so well develops in his book *Sweden, the Middle Way* (Faber and Faber).

It is this rare combination of good taste and imagination with a sound business mind, of the national tendencies to pleasure-loving hedonism with common-sense legislation—all these things are perhaps the reasons for the simple yet advanced community life of the Swedish town, which is so refreshing to the English visitor.

MUNICIPAL WORKING-CLASS HOUSING

One feels that these noticeable advances are reflected primarily in the personal relationships in a city between the people and their representatives, the city authorities. It is significant that at the municipal elections in Stockholm 75 per cent. of the people vote, a true sign of the individual's growing awareness of his own share in civic responsibility. The Councils, on their part, respond to this lively confidence by imaginative and flexible town planning and city administration. But this does not mean that their far-seeing schemes ride rough-shod over economic considerations. It is exactly here that one sees that unique combination of the Swedish practical business mind with an expansive and liberating direction of policy. The financial side of town development is firm and watertight, the outcome of settled security and experience; while the æsthetic superiority to be seen in their town development is the result of wisdom in placing a highly talented, imaginative and forward-looking personnel on the official staffs. This is very important. The persuasive influence on their committees of these official architects and town planners, with their intelligence, training and sensibility, lies behind the ordered beauty of development one finds almost everywhere.

Although there are one or two anomalies which will be referred to later, the Swedish housing campaign owes much of its success to the way the local authorities combine a powerful control of the *private* disposal of land with an unusually flexible machinery where the disposal of *council* land for housing purposes is concerned, and, as will be seen, it means that land is "generalised" and not "parcelled." It must not be forgotten also that most Swedish cities own well over half of the land upon which they stand. These things mean this—that although the municipalities of Stockholm and Gothenburg are selling sites for blocks of flats to the highest bidder (and they advertise for and accept the highest offer) their concern is not solely with the necessity of making a profit on the original price paid, but chiefly with the question of the specific purpose for which the land is to be sold. As a result of all these factors the council has been able to sell land only for housing purposes at fixed rates. This is a clever scheme which among other things lays down that the larger the building to be erected, the greater is to be the price of land. It thus keeps an even balance between land

value and the building value, and this has a stabilising effect upon the rents. A housing society wishing to erect a group of flats has first of all to submit to the Town Planning Committee of a body known as the "Real Estates" office of the Town Council a site plan showing the area of each floor, the height and number of storeys in each building, and the siting or orientation and layout of the blocks of buildings. This is done in many cases by the means of a true to scale model which can be studied from all aspects by members of committees. Models are used a great deal in Sweden, more so than in England where town planning committees judge (or misjudge) extensive schemes submitted on paper. The model shows the contours, the layout, the relative heights and siting of blocks at a glance, and upon these the committee can approve or disapprove the layout arrangements and then set to work to compute the price that the scheme itself demands for the land. The principle is so sound that it is worth investigating further.

For housing activities there is no "square metre" land valuation, which applies only to virgin land, but when sold for building purposes it is based upon the number of "room-units" in a proposed building. A "room-unit" comprises 30 square metres, a hypothetical figure only, covering also corridors, halls and lavatories. To obtain the number of rooms on a floor, its total area is therefore divided by 30 square metres. The resultant number of room-units is multiplied by the number of stories and so the total number of room-units is obtained. For the average weekly wage-earner's flat the market price of land for this type of housing is about Kr. 1,200 a room-unit (£60), but the city, however, out to stimulate housing activity, sells ground for the purpose for half this usual market price, i.e., £30 a room. If we take an average block of flats of six storeys with fifteen room units on each floor, the site price will only be about £2,700 (90 rooms \times £30)—a moderate figure when one considers that for the middle-class of luxury flats in the Ladugårdsgärdet district in Stockholm, where £130 per room-unit can be obtained, the land price for a similar sized block in the open market would be £9,750! And it should be remembered there are about 120,000 houses in Stockholm under private ownership and control.

The ownership of dwellings in Stockholm is as follows:

Owners	Number	Approximate Percentage of Total
1. Privately owned for letting (approximately)	120,000	69 %
2. Housing Societies	33,000	19 %
3. Municipality	8,000	5 %
4. Kingdom of Sweden	800	0.5 %
5. Freehold property used by the owner himself	11,000	6.5 %

Municipal grants have been made towards about 20 per cent. of the total number of dwellings in the town belonging to numbers 1, 2 and 5.

The city aids housing development in other ways than by halving their land prices. It offers money at low rates to stimulate building and loans are granted up to 90 per cent. of the value of the estate. But in return for these facilities the city controls the size of rooms and the rents, and only lets to tenants whose incomes are not more than five times the rent demanded.

The maximum rent in Stockholm for this type of flat is Kr. 23 a square metre a year. So for a flat comprising a single living-room and kitchen, with a bathroom annexe, at this rate the maximum rent would be about £45 a year. Rent for a similar flat in the open market over which the city has no control would be about Kr. 30 a square metre per annum, or about £55 a year.

The figures discussed above, however, do not apply to the lowest income groups with large families, and who come under a special scheme which will be referred to later.

Although these figures for small flats may seem high to the Englishman, it must be borne in mind that the average weekly income of the unskilled wage-earner in Sweden is proportionately higher—£3 10s. to £4 a week—and also municipal facilities are more extensive in many other ways.

The following is the general principle of the financing of private buildings for housing of the working-classes and, aided by the city authorities in Stockholm, taken for an average block of 20-30 flats:—The bottom loan permitted amounts to 60 per cent. of the building costs and is placed in a bank upon mortgage. A second loan is obtained from the banks or from a special State-controlled credit fund (the Swedish State Loans Fund), which must be amortised and can amount to 80 per cent. A third loan up to 90 per cent. is sometimes obtainable, thus leaving a 10 per cent. capital to be supplied by the owners themselves. And in many instances even this is advanced by a more substantial contractor colleague. A not very sound principle, however, one gathers, which tends to force up the rents in specific cases.

Here we should look more closely into the constitution of the city councils in order to discover the key both to their authority and to their surprising freedom of action in these matters.

In Stockholm the city council consists of one hundred members elected every four years. Of these there are six burgomasters, of whom each is a chairman of one or more committees.

Town planning falls under three committees or "offices" all presided over by the same burgomaster. In Stockholm:—

- | | | |
|------------------------------------------|----|------------|
| (1) Town Planning Committee (layout) | .. | 9 members. |
| (2) Real Estates Committee (Finance) | .. | 7 members. |
| (3) Building Control Committee (Byelaws) | .. | 5 members. |

In provincial towns:—

- | | | |
|--------------------------------|----|-------------------|
| (1) Building Control Committee | .. | 1 member. |
| (2) Board of Finance | .. | (varying number). |

As we have seen, a proposed building scheme is submitted in the first place as a small scale plan or model to the town planning committee, showing:—

- (a) The overall dimensions of buildings and the site.
- (b) The number of storeys.
- (c) The number of rooms on each floor (calculated at 30 square metres a room).
- (d) The proposed siting in relation to existing roads.

Before the preliminary scheme is approved it may have to pass before the streets committee, the education committee (for schools), or the public hospitals committee.

After the approval by the Real Estates, and any other committee concerned, further detailed plans must be submitted to the Building Control office, where they are "hung on wall" for thirty days.

It is here that byelaws regarding structure, materials, sanitation and window areas must be observed, and, in addition, the city architect exercises control over the elevational appearance, colour and surfaces. Redress against this committee's decision is very rare, and, indeed, is only with the King.

All new town plans, layouts and important modifications (even in Stockholm) have to be approved by the Government after being adopted by the town council, but in a certain sense the latter is almost the final arbiter, since the Government will seldom refuse to approve the schemes submitted by the larger towns, whose councils by their expert care for dignity and quality make it impossible in city areas for speculative builders to erect shoddy houses of no architectural value.

Great care is taken over the important task of shaping the environment, and this double machinery for scheme approval, because it is apt to be both penetrating and tardy, discourages those who would speculate privately in land for building purposes. No one will buy land until he knows whether it will be passed for a building scheme or not. The time for preparing preliminary schemes and waiting for approval is often so great that owners, in order to get a safe, immediate, but moderate price for their land, are willing to sell it to the city, who are buying up all the sites they can and giving for them a reasonable market price. In this way more and more land falls out of private and into public hands, where it can be reserved for use and not for profit, and where, by its special terms of purchase, land can act as a stimulant rather than a deterrent to public or private building operations; this is their initial advantage over those places where land value and ground rents are notoriously high.

HOUSING OF LARGE FAMILIES ON LOW INCOMES

Municipalities the world over are recognising more and more that in a healthy community poverty within limits may exist, but only on sufferance, and it may not interrupt the right of individuals to enjoy the normal advantages of life without serious detriment to society as a whole. And indeed one finds that in a few com-

munities financial poverty is itself a doorway to privilege and opportunity, and many who are a little below the line have advantages which those a little above it have not. This last important factor is, perhaps, the beginning of the difficulty over the differential renting question in England. But it might be of use to observe the Swedish way of dealing with the problems—arising from concern over the decline of the birth rate, a decline caused largely by the slender family incomes. The authorities conceived a simple and practical solution in relating rents to the size and means of a family.

Special blocks of flats are erected for this purpose, and in the first place those who erect them are not charged the usual "half-market" price for the land, but are given the site *free* in return for city rent control, which shows again the advantage of generalising or centralising the whole of the municipal land. In addition, 65 to 95 per cent. of the cost of the house is loaned by the Government and city, which has formed three private companies for the purpose.

As regards tenants, they are admitted if their income is below the poverty line of Kr. 3,500 a year (£175) for a family with three children (or more) under sixteen, calculated as follows:—

The Father	Kr. 1,000 per year.
The Mother	1,000 "
Each of 3 children under 16—	Kr. 500 1,500 "

Kr. 3,500 = £175

When the houses are built and the flats are ready for occupation, they are let in the following way:—

Three children obtain a rent relief of 30 per cent.

Four " " " 40 "

Five children or more obtain a rent relief of 50 per cent.



Housing for large families on low incomes, Stockholm

Thus for a two-roomed flat and kitchen, the smallest type, the rent, which normally would be Kr. 850 (£43) a year, in the case of a family with three children would be Kr. 595, or £30 a year, i.e., the rent is 16 per cent. of the yearly income, instead of 25 per cent.

The problem of accommodation is slightly eased in Sweden as compared with the standard in England. This is largely due to the fact that tenants there do not insist upon sleeping only in the bedrooms as they do in England, where many families prefer to sleep in crowded bedrooms rather than release the living room for that purpose. In Sweden it is accepted that the living room is also a sleeping room, and the bed in most apartments either folds up in a cupboard or (more usually) becomes a divan couch by day. This fact is taken into the official calculations for adequate accommodation, and is, of course, whether we agree with the principle or not, a material advantage so far as the statistical solution of the problem is concerned.

As was mentioned in the earlier articles, the standard of accommodation is good in the new housing schemes throughout Sweden, and the rooms are well lit and well ventilated. Almost without exception apartments are provided with a centralised central-heating plant, and many with dust chutes from the back entrance landing to a central refuse disposal incinerator in the basement, also with well-equipped bathroom, lavatory and w.c. suites, and amply spacious kitchens fitted with cupboards with sliding glass dry store containers. Clean and palatable food preparation is encouraged by the universal provision of a stainless steel sink and draining board unit, which costs £4 10s., and in some cases for higher rentals a refrigerator is also provided.

The windows of the rooms are large and well made, principally in wood with two thicknesses of glass against the winter cold; the double sashes are made to open inwards over the whole of the window opening, letting in the maximum of sunlight and air in the summer; and many of the apartments are considered incomplete unless they are planned to include sun balconies.

Nowhere in the world is the standard of housing accommodation so high, and the good result arising from it all is that the few city schemes built in the last few years have forced up the standard of privately launched housing undertakings to the universal benefit of the tenants. But it must be remembered that the municipal schemes themselves have been healthily stimulated by yet another factor which plays so prominent and lively a part in the life of Sweden to-day—the co-operative societies, to be considered in detail later, who not only have succeeded in reducing the price and increasing the quality and consumption of nearly all essential necessities, but also have launched themselves out upon a most successful housing enterprise, wherein their moderate rents include the use of sun-bathing roof terraces and special carpet-beating areas on the roof, laundries in the basement, children's

crèches, collective restaurants, and many other amenities. Indeed, an element of healthy competition for quality of accommodation exists, which is the mainspring itself of the three great spheres of housing activity—the private, the municipal and the co-operative schemes.

The new buildings are designed to grace their environment, not to intrude upon it. We have already seen how, in the first place, great care and thought is given to the proper siting of the blocks, to the preservation of trees and green playing spaces, and to right spacing to obtain sun and view to all principal rooms. And when the buildings are actually complete, their simple masses of white rendered brickwork, the rhythm of projecting balconies and low-pitched roofs of felt, tiles or galvanised sheet iron, all provide a pleasing foil for the slanting shadows of the firs and birches that stand round them on the rocky ground.

One of the most noticeable qualities in these Swedish housing blocks is their designers' ability to provide uniform and well-spaced window units, for they are not afflicted with a sanitary code which insists that w.c.'s and bathrooms should back on to outside walls, with all that this brings in the form of external vent pipes and odd-sized windows. Bathrooms and w.c.'s may be grouped in the centre of a building so long as they are ventilated by their own central air shaft and discharge their drains down another duct internally and out beneath the building to the sewer in the street. External walls are freed for windows, light and air, which facilitates the achievement of good wall texture and right proportion, and a simple architectural expression.

Although we must admit that in the past this practice has produced immoderate depths of blocks, to-day, however, where this danger is intelligently avoided, from the point of view of the planning, great economy and ease of room disposition is naturally effected without any painful struggles to juggle sanitary units away from the building's sunny sides to the rear.

RECONDITIONED HOUSING IN STOCKHOLM

In Stockholm the degree of practical enlightenment one sees does not appear to be confined to the new housing schemes alone. The problem of the old quarters in all cities is whether to demolish or to recondition. In these parts of Stockholm there are a few interesting mediæval and early Renaissance buildings with their interesting façades crowding on to very narrow streets. These houses are naturally ill-lighted in front, and the rooms also have a gloomy and excessive depth giving out on to mean and poorly ventilated courtyards in the rear. But inside there is a surprising wealth of good detail, and the authorities, in order to maintain the charm and character of these areas, have decided not to demolish the houses, but have undertaken a large scale reconditioning scheme at great cost to themselves. While the façades of a block are retained,



Reconditioned flats: A courtyard improvement in Stockholm, and an interior showing a porcelain chimneypiece and a painted wooden cabinet (1770)

facing four narrow streets, the interior courtyard is completely reshaped, partly demolished and faced up, disturbing as little as possible the existing structure, great care being taken to preserve old trees and architectural elements which do not restrict light and air. Inside the buildings new flats are remodelled, new staircases, bathrooms and well-equipped kitchens are skilfully planned to fit within the existing walls, and the living rooms are made to retain much of their good eighteenth century plasterwork and panelling. The outstanding old details are the huge yet delicately designed porcelain stoves placed in an angle of the room and balanced in the opposite corner by a cupboard or niche crowned with the familiar cornice and curved pediment, an elegant reminder of the once powerful but now faded bourgeois aristocracy.

Since the lower storeys in these confined quarters have less sunlight, the rents, which are not unreasonable, rise as the flat is placed higher. These schemes, however, are not designed as any solution to the housing problem of the poorer section of the community, but are mostly let to professional men and higher salaried office workers.

About nine-tenths of the total number of old dwellings have escaped demolition in favour of the Council's reconditioning policy. Loans are obtainable as for a new scheme, but a private firm seldom undertakes a reconditioning contract owing to the impossibilities of an accurate forecast of costs or of making a success of a complex problem such as this without financial sacrifice. But the rents are reasonable, and their central position, together with the excellent interior amenities and the restful charm of the courtyards, make these flats popular and easy to let.

OWNER-BUILT PREFABRICATED HOUSES

Apart from this special work of reconditioning, the authorities—with the exception of a few slum-clearance schemes—have done very little towards the actual erection of new buildings. In fact it is only since 1934 that the city itself has built schemes for housing the "large-family low-income" group of tenants. It has long been aiding private enterprise by cheap land and cheap loans, but has largely held aloof from the complete responsibility of municipal erection as well. However, there is a sphere in which the municipality have led the way in a successful experiment as remarkable as it is complete. It is the scheme for owner-built one-family houses built on portions of the garden estates outside the city. Around Stockholm 21,000 acres have been bought for £1,200,000, which includes all the garden-suburban developments. But under a special department of the Real Estates office, layout plans of these garden city areas for owner-built houses are prepared. The sites, of varying sizes from 420 to 600 square yards, are let on leasehold terms only, for a period of sixty years, with the tenant's rights of renewal. The occupier pays a 5 per cent. ground rent annually (about 4d. to 5d. a square yard). In Stockholm the total capital from garden city ground rents alone amounts to £2,100,000, which amply pays for laying the roads and providing the services. The building office erects central depots on each of the estates in charge of a manager, who issues plans of five types of standardised houses, designed to be built up of standardised wooden sections. Grouped around this depot are the large central building yards and materials bureau.

From May to October the building season is open, and families apply to build their own houses, the site is selected, the type of house chosen, and the cash deposit comprising one year's ground rent plus the building insurance premium (about £17) is paid. The owner-builder then orders his materials, which he obtains on credit, to be paid off in the form of rent during the

ensuing thirty years. By credit also the owner-builder has his drains, gas and water connected and his electric wiring installed by specialists commissioned by the authority. Glazing, sheet-iron work and heating installation is provided for in the same way, and the remainder of the work is completed by the new family, together with their relatives and friends. They lay the concrete on their basement floor and erect its base or plinth walls in pumice concrete blocks to the plans which are provided; they set out the joists and nail down the floors, all materials being provided in suitable lengths for the different rooms. After the standardised wooden wall sections are in place the owners themselves fix the wall board for their wives to paper. The staircases, the mass-produced concrete flue blocks and inside joinery are all handled by the men, the interior decoration and outside painting chiefly by the women.

The standard of skill is surprisingly high, fostered, no doubt, by the conscientious enthusiasm of these owner-builders. They are, however, allowed a skilled carpenter for twenty-four working hours for the exacting task of erecting and fitting the standard wall sections. But in all this no money transaction takes place; all is done on credit, and it is estimated that 30 per cent. of the cost of building is saved by these combined economies of the owners' own labour and the mass issue of standardised materials. In addition, there are facilities for free advice and instruction, and always a supervisor to take the control over every group of fifty houses. If the family does not complete its work, the municipality will step in and do it at the family's expense. But this occurs very rarely. When the house is complete in October, garden experts are available to advise upon the planting and layout of sites.

Sometimes, as at Gothenburg, terrace houses are erected by three or four families at a time, which calls forth a degree of co-operation only to be found in Scandinavia. This, perhaps, is the paramount advantage in the scheme—the co-operation and fellowship achieved in that stimulating, intense period of building, prepare the way for a proper social unit; for this owner-builder principle means that the estate does not merely rise up to be a collection of streets and houses, but grows into a living thing, a vital community of proud and successful house-owners who, besides achieving something of great family significance, have earned the right to live there by the sacrifice of a whole summer's long evenings and week-ends. The Englishman who pays £5 down for his suburban house is, one feels, deprived of this integrating satisfaction and reality.

The city has formed its own company for the financing of these schemes and owns the shares. As surety for the credit-notes on the materials, the building owner gives the city a mortgage on his new property with a prior lien in his leasehold rights. Against this mortgage the city gives the building credit which, later, is converted into a loan to the building owner, which is paid back

annually, and covers not only the cost of materials and skilled labour, but a sum for administration costs. Thus the scheme is entirely self-supporting and does not rely upon public funds.

Such details as the provision of an architect to control the placing of houses, the exterior colour schemes and fencing, and of horticultural experts for the gardens, and, above all, the common-sense provision of cheap municipal buses at 3½d. maximum fare (to all estates scattered about a radius of from two to eight miles away)—all these things go to show the practical imagination and competence of the Swedish authorities in this question of housing their people.

However, the "competence" may appear to be carried almost too far in some cases. At the Bräcke Estate outside Gothenburg the criticism might justly be made that it suffers from a wearisome precision and monotony of units, which, though well spaced apart on their sites, are quite lacking in the relief which could be achieved by a freer, though perhaps more costly (because less standardised) principle of grouping.

In other districts this tendency has been better avoided by variations among the five different types of houses and by the judicious inclusion of terrace houses and groups of shops, together with the preservation of trees and open spaces.

Around Stockholm the total population of these owner-built garden suburbs is 50,000, showing an annual increase of 2,500 persons; figures which in themselves show how much the popularity of the garden city is due to this experiment. A four-roomed cottage costs about £588 to build, and the owner's annual payment is £50, the same as for a one-roomed flat with a kitchenette in the city. A three-roomed cottage costs £500, with a yearly rent of £43.

In these estates the scheme—started before the days of prefabrication in 1907—was originally intended as a special facility for those who were in need of good houses, but had not sufficient capital to build on the usual terms. However, the sites were so attractive that in the first few years several good streets of houses were completed under private contract on the well-spaced and well-wooded sites for owners from the higher income group of from £500 to £800 a year. It was only after 1927 that the authorities began to reserve the land more strictly for its originally intended purpose, perhaps concluding that the particular advantage so ensured outweighed the former one of permitting families of greatly varying income levels to inhabit the same community. Therefore, we now find that no tenant earning less than £160 or more than £325 a year is allowed to build on these estates.

Authorities are naturally anxious to obtain good owners and tenants on their schemes who will live in social harmony with each other and will take care and pride in their community.

OWNER-BUILT PREFABRICATED HOUSES

*At the Building and
Materials Office, Angby,
Stockholm*



*Laying the plinth wall
to the cellar*



Hanging casements



A flue unit



Preparing for the roof



The house completed



TENANCY SELECTION

Here in England we cater for all alike, and place the responsibility of selection upon tenancy committees, who rightly consider urgent material necessities, such as suitable new accommodation for slum children, before the question of the "respectability" of their parents. This latter factor is, of course, hardly ever known, and in most cases can only be guessed, since in Great Britain municipalities have few records of domestic conduct on their council memoranda. But there is a fairness in considering everybody alike which appeals in theory to all except those who happen to have the misfortune to be placed next door to offensive and slovenly neighbours. However, despite these difficulties, we still think it better that all should have a fair chance of consideration, and so we leave the delicate details of allocation and family assortment to the local council's tenancy committees presiding over estates.

In Sweden the difficulties in this sphere are lessened, since, chiefly by reason of their smaller population (6,500,000), the authorities throughout the land have been able to compile a remarkable official card index system which registers and locates the behaviour, activities and movements of every citizen; and so we find that only families with a thrifty, respectable and sober record are selected as tenants or owners of municipally aided homes. A bad record, an unsteady occupation, and even unemployment (which, however, is practically non-existent at present) debars a family from consideration. And these unfortunate, ineligible people have to live a kind of barracks existence as best they may in municipally owned cheap tenement blocks in doubtful, if not nameless, condition. Although to-day there are few signs of hardship and distress, another world depression, depriving families of work, would indeed make the problem of the unemployed man's home embarrassingly acute, and would have to call forth rapid legislation and special provisions to prevent a social catastrophe in that particular sphere.

HOUSING THE OLD

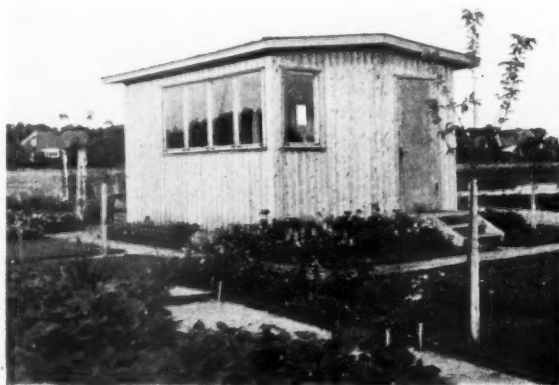
However, one section of the community receives consideration in a way which we and other countries might well adopt—the housing of the old people, who live in special municipal flats at a 50 per cent. reduction and are further assisted by a popular fund known as the "Flower Fund," wherein by special request the value of the customary wreaths and flowers at funerals is given instead to this purpose—a practical and more fruitful gesture of memory and respect, for it means that, as a result, many old people are not forced to the indignity of having to ask for public assistance by reason of the absorption of almost all their slender pension-incomes in rent. Incidentally, if anybody now dies intestate, the money is pooled in a central fund to provide holiday homes for poor children. Another example of common-sense legislation.

ALLOTMENT GARDEN COLONIES

The population of Stockholm is 554,000, and although few cities are more favourably placed, or, indeed, possess more natural beauty or freedom of space, yet the Council have applied themselves as the city has grown to the stimulation of healthy outdoor occupation for the people. The garden colony allotments, built on large tracts of city land, are yet another of their successful experiments.

A great impetus to the project was given in the latter years of the war when Sweden was practically cut off from outside supplies and every available piece of unused urban ground was needed for the cultivation of eatables.

There are now forty-six colonies in and around Stockholm alone, consisting of 4,400 allotments covering a total area of 400 acres. The scheme fulfils a double need: it not only provides a useful occupation by encouraging the home production of flowers, fruit and



An allotment hut in the Colony Gardens, Stockholm, and an aerial photograph of the Delsjö Colony, Gothenburg (1926)

vegetables, but also it is designed to compensate in a practical measure the poorest section of the community who cannot afford to go away for summer holidays.

The sizes of allotments vary from 200 to 500 square yards (i.e., ten to twenty-five to the acre), and plans for five standardised types of cabin are prepared and issued to the allotment holders under a special loan. These cabins, which look like a miniature villa and consist of two or three rooms, cost from £43 to £57 to build, and vary in size from 80 square feet to 170 square feet. They are built among the flowers and vegetables, and the total rent for this smallholding amounts to £1 to £2 a year.

The garden colonies are really charming in summer and gay with their bright displays of rich colour and their well-kept hedges. The municipality puts in land drains, if necessary, lays down broad paths and connects the house drains and services; so that we find a great number of the poorer section of the community abandon their tenements in the city for weeks at a time and come out to work or "luxuriate" throughout the light summer evenings and the long, warm week-ends in an atmosphere of restful beauty and fertile profitable growth.

THE CO-OPERATIVE HOUSING SOCIETIES ENTERPRISE

Mention has been made before of the co-operative societies, and no account of housing in Sweden would be complete without a tribute to their large scale, yet simple and effective, solution to the problem, in themselves ventures of combined foresight and courage stimulated by the sympathy and assistance of the city councils.

It should be remembered that if we consider the three great sources—the municipal, private and co-operative companies—about £10 per family throughout the land is spent every year on housing. To reach the same relative figure in Great Britain would mean an annual expenditure of £140,000,000. So it is not surprising that slums as we know them are virtually non-existent in Sweden.

However, it is not merely the question of relative expenditure, but another far more important factor which is the chief reason for the high measure of success in this field. This factor is the public outlook formed by their type of education. It is this which uncovers the secret of it all. Marquis Childs perceives this in his book, and directs his readers to consider the *background* against which all these keenly felt social needs have presented themselves—this broad background of social and economic education. By doing this we see that these reforms have not been superimposed from above through the beneficence and righteousness of a class that took its own superiority for granted, but they are growing up of their own accord out of the inherent socialised attitude of the people themselves. So it is

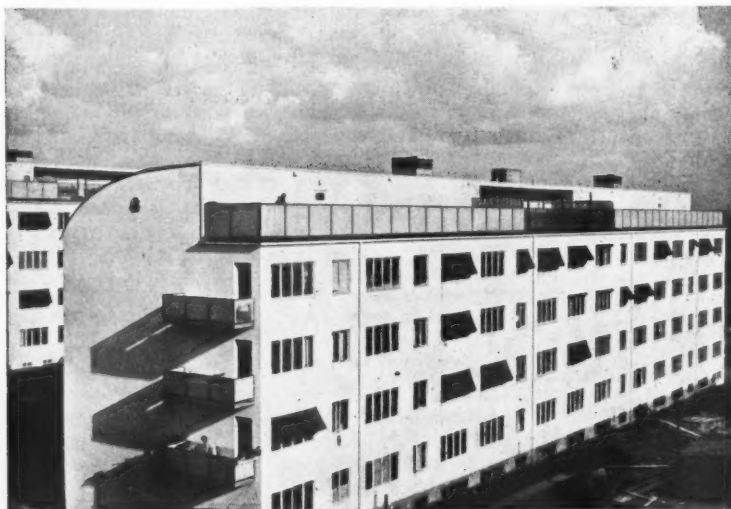
quite natural that we find this problem of house provision solved chiefly by co-operative principles which are able to apply their extensive economies and advantages not only to the planning and erection of the buildings themselves, but also to the subsequent provisions for living in reasonable comfort without drudgery by including such facilities as laundries, nurseries, collective coal supplies and the shopping centres, which in many cases are incorporated in the apartment blocks.

The housing projects of the co-operative societies, like the city schemes, gauge their accommodation to the requirements of the different income groups. But whereas the city limits itself to the provision of cheap land and cheap loans *only* (in all but the lowest income undertakings), the co-operative societies, in addition to financing their schemes, carry out all their own building and run their own architectural department. This is under the leadership of Eskil Sundahl, and forms one of the most important and progressive units of architects in Europe, whose buildings, whether factories, warehouses, shops or apartments, never seem to fail to evince that distinguished quality of simple freedom and appropriateness which permeates the whole of the work of the co-operative movement in Sweden. There it is an organisation remarkably free from the political shapes it has assumed in other countries, designed as it is to form a harmonious unit for producers and consumers, and embracing more than in any other State all levels of wage-earners. Indeed, the Crown Prince himself draws his annual dividend!

The largest of the co-operative companies for building flats was formed in 1923, and is known as the H.S.B. (Hyresgästernas Sparkasse och Byggnadsförening)—the Tenants' Saving Bank and Building Company—which has already operated in sixty-one Swedish cities. This company has spent altogether £8,000,000 in providing accommodation for nearly 20,000 families. Its central board is formed by representatives from Stockholm, Gothenburg, Malmö and Norrköping, and it is within this "National Union" that plans and estimates are prepared, contracts and legal agreements drafted, loans and credits arranged, audits compiled and building materials purchased. The size and responsibilities of this central executive can best be understood when we consider that in Stockholm alone there are apartments housing over 12,000 families which yield a total rent of £430,000 a year, the real estate holdings being worth more than £6,000,000.

In order to facilitate administration, a parent society is formed in each town, which handles the erection of new groups of flats, each undertaking becoming in itself a new subsidiary society, i.e., a separate manageable economic unit allied to the parent society which formed it.

Primary and secondary loans are obtained from the National Union and Parent Societies and from the city

*H.S.B. Dwellings at Gothenburg*

up to 90 or 95 per cent. of the cost of building, the remaining 5 to 10 per cent. being covered by the basic deposits of the members of the subsidiary society. As far as tenants in Stockholm are concerned, these deposits are paid back after a period of twenty years.

All prospective tenants have to become members by purchasing a share in the company for £2 10s. ; and, in addition, for the higher standard group of apartments, "Type A" house, most pay a 10 per cent. deposit, which, according to the size of flat, varies from £40 to £240, and covers a bath and kitchen with one up to five rooms. The rents vary from £25 to £175 a year.

A slightly lower income group is served by "Type B" apartments, where deposit ranges from £16 to £80, and yearly rent, again according to the number of rooms, rises from £24 to £100.

But for the lowest wage-earners "Type C" houses are provided, and it is here that the city come half way to meet the need by its provision of free land and almost the entire capital at a cheap rate. This is a section of the scheme we have already considered, which provides homes for the large families on low incomes. These people pay no initial deposit, and in the same way as we have mentioned obtain their rent reductions according to the number of their children.

As also in the city-aided schemes, tenants in H.S.B. buildings are carefully selected from the more thrifty elements of society. The wisdom of this, as far as the organisation itself is concerned, reveals itself in the return figures for 1935, wherein the total arrears in rent only amounted to 0.22 per cent., and out of 8,805

apartments the number of those unoccupied were, in fact, only two !

Special mention should be made of the special apartments for widows and single women in Stockholm ; well-equipped units, let off as one-roomed flats with a separate bathroom and kitchen to each unit. The whole of the top floor is planned as a children's nursery and playroom, decorated with gay colour used in restraint, and opening out on to a spacious roof terrace. Here also the epidemics of childhood may be dealt with in isolated sick room units, run in connection with the day nursery. It is the imaginative amenities of this kind which has made co-operative housing so popular. Indeed, most blocks erected to-day are found with their day nurseries and nursery schools where working mothers may leave their children during the day, where babies are cared for and meals are given for 1s. a day, the cost diminishing as the child grows older and less dependent upon continual supervision. Here also schoolchildren may do their homework till as late as 7 p.m., when they must relinquish the room for the gymnasium classes held for young men and women.

These special facilities for children in Sweden probably arise from the deep concern over their very low birth rate, which has promoted authorities to encourage anything which will lighten the burden of rearing children in wage-earners' families where both parents go out to work.

Particularly is this problem felt where married professional men and women are concerned, and where strong domestic ties other than their mutual companionship are a real hindrance to their work. "Kolle-

tivhus" is an interesting attempt by the architect Sven Markelius to solve this problem, for here infants may be sent to the "children's hotel" in the building for days at a time. Neither need the business of daily preparation of food be a restriction upon the freedom required by these people, for meals are cooked in the basement "collectively" and may be served either by lift to the individual apartments or taken in the restaurant on the ground floor.

In addition to these activities within the cities, the H.S.B. have launched a garden-city scheme of their own for owner-built standardised "magic-houses" on the same lines as the city schemes. They have also created seaside summer resorts for their tenants, the most notable being at Årsta Havsbad, where they have purchased many acres of wooded rocky shoreland about 30 miles south of Stockholm on the Baltic. Here a delightful summer colony has arisen with its fine stretch of sandy beach extending for over a mile and giving excellent bathing facilities. Rising by a broad flight of steps from the centre of this beach stand the hotel and café designed by Sven Wallander, the architect of the H.S.B. These long horizontal buildings of wooden construction form a most pleasing and restful composition, and have obviously been placed with much care and thought upon the lofty natural terrace that overlooks the bay of the Baltic strewn with its innumerable green islands. Among the trees surrounding the hotel are the tennis courts, and behind it a shopping centre laid out simply around a central square, from which rises the hillside covered with summer chalets built among the moss-covered rocks and placed to have a view of the sea through the branches of the fir trees. It is here that co-operators come to rent a small house for their use during the summer, or for the snow-sports in the winter, and one is always in an atmosphere of peace and great natural beauty.

CONCLUSION

It is such provisions as these, taken in that country as a matter of course, which seem to punctuate the whole of the Swedish housing activities with an element of completeness in conception, and mark the whole venture as an outstanding success of its kind.

For a further technical and statistical summary of housing in Scandinavia the reader would be well advised to read the Building Centre survey of European Housing, and Elizabeth Denby's *Europe Rehoused*, both illuminating and valuable references on the subject.

We have seen here how the greater part of an ideal is rapidly taking concrete shape, and in bringing ourselves back to its root we return to the three great causes which manifest themselves as the true basis of its structure. Firstly, the remarkable measure of co-ordination and right relationship that exists between the municipalities, the co-operative and the private activities as well as the public, who of themselves introduce the second factor—the transforming influence of a silent "revolution" which is growing up out of an objective and adaptable standard of social education; for it is a standard which has been made possible and is now firmly established in the fabric of Swedish national life by the third cause, the circumstances of a century of unbroken peace and relative detachment from those embarrassing elements that are arresting similar advances in other European countries.

So, indeed, despite any anomalies we may detect in comparison with our own standards, we should do well to take note of this Scandinavian example in thus combining moderation with imagination and in applying a sane all-round intelligence to human problems which has carried them so much further than anyone else along this bold course of good housing—a necessary one and indeed the first way towards a stable and contented community.



Prefabricated shops at Gothenburg

THE INSTITUTE'S APPEAL

The following is the ninth list of donations and increased subscriptions received up to 5 August in response to the appeal issued to all members and honorary members and students on 16 December 1938.

Members who are contemplating making an increased payment of subscription whereby the amount of the increase will be payable to the appeal fund are reminded that if they are prepared to enter into an agreement for the payment of such increased subscription for a period of seven years or more they will be entitled to deduct income tax at the standard rate from the amount by which the subscription is increased.

Full particulars were published in the issue of the JOURNAL for 6 February, and can be obtained on application to the Secretary, R.I.B.A.

DONATIONS

	£	s.	d.		£	s.	d.		£	s.	d.
Richard C. Ball [L.] ..	5	0	0	Claude V. Hodges [A.] ..	18	0		W. A. Ritchie-Fallon [A.], 2nd			
R. Alfred Barber [A.] ..	1	1	0	M. P. Holmberg [L.] ..	9	9	0	Donation ..	1	1	0
W. R. Benwell [L.] ..	1	1	0	L. G. Jackson [F.] ..	3	3	0	H. J. Rowse [F.] ..	52	10	0
J. C. Cunningham [Student] ..	1	1	0	Lewis Jones [Student] ..	1	1	0	I. H. Salonika [L.] ..	4	4	0
F. H. Daniel [L.] ..	2	2	0	Robert Lowry [F.] ..	5	5	0	L. H. Smart [L.] ..	2	0	0
H. L. Goddard [Ret. F.] ..	5	0	0	Chas. H. MacKeith [L.] ..	2	2	0	H. C. Upton [A.] ..	1	1	0
Major H. H. Grant [A.] ..	3	3	0	Oswald P. Milne [F.] ..	5	0	0	R. H. Uren [A.] ..	5	5	0
T. C. Hartley [Student] ..	1	1	0	C. L. Pace [A.] ..	1	1	0	R. C. Vass [L.] ..	2	2	0
T. J. Haseldine [Student] ..	2	2	0	Miss O. Emmerson Price [A.] ..	2	2	0	E. W. R. Waugh [A.] ..	1	1	0
E. W. Haysom [Student] ..	10	6		P. H. G. Rexilius [Student] ..	1	1	0	H. M. Wright [A.] ..	15	0	

DONATIONS FROM R.I.B.A. ALLIED SOCIETIES

	£	s.	d.		£	s.	d.		£	s.	d.
Birmingham and Five Counties				East Africa Institute of Architects	10	10	0	Board of Architects of New South			
Architectural Association ..	21	0	0	Exeter Branch, Devon and Corn-				Wales ..	52	10	0
Bristol Society of Architects ..	3	3	0	wall Architectural Society ..	10	10	0	South Wales Institute of Archi-			
								itects ..	20	0	0

INCREASED SUBSCRIPTIONS

The following members and students have promised to increase their annual subscriptions by the amount and for the number of years inserted in brackets against the amount.

	£	s.	d.		£	s.	d.		£	s.	d.
B. V. Bartholomew [A.] ..	2	2	0 (3)	C. Bertram Parkes [L.] ..	1	1	0	E. H. Turner [A.] ..	1	1	0 (10)
R. H. Jones [A.] ..	1	1	0 (3)	" a year until further notice				Harry Walters [A.] ..	1	1	0
P. J. J. Panter [F.] ..	1	1	0	H. J. Rowse [F.] ..	3	3	0 (5)	" a year until further notice			
" a year until further notice											

The donations and increased subscriptions or contributions received and promised up to 5 August represent a total of £6,597 15s. 4d. This amount does not include increase of subscriptions or contributions promised for which no definite period is stated.

CAMPS FOR PEACE OR WAR

Camps for the National Camps
Corporation, Limited

Architect: T. S. Tait [F.], of Sir John Burnet, Tait &
Lorne [FF.], consulting architects to the Corporation



On 16 January this year *The Times* gave its first mention in a leader to the question of camps for peace and war. On 9 February it followed with "On with the Camps," and on 14 February with "Camps at Last." The Camps Bill was passed on 25 May; now fourteen camps are in course of erection, another sixteen are in various stages of preparation, and by the end of August the first of them will be completed.

While the Camps Bill was before Parliament there was some discussion as to whether it was a sufficiently adequate measure; many felt that, while it made provision for the building of camps that could be used as holiday camps by schoolchildren in peace time, and as evacuation camps by children or adults in time of war, it ignored another important need for camp building in this country—the provision of camps for holidays with pay. As Mr. G. Langley-Taylor [F.] said in a letter to *The Times*, although camps for holidays with pay are not so obviously a Government matter, "it must appear desirable that, having provided that there shall be holidays with pay, the country should be concerned that accommodation is available for these holidays." And here it must be remembered that our commercial holiday camps, excellent though some of them may be, do not cater for the lower income levels of the population.

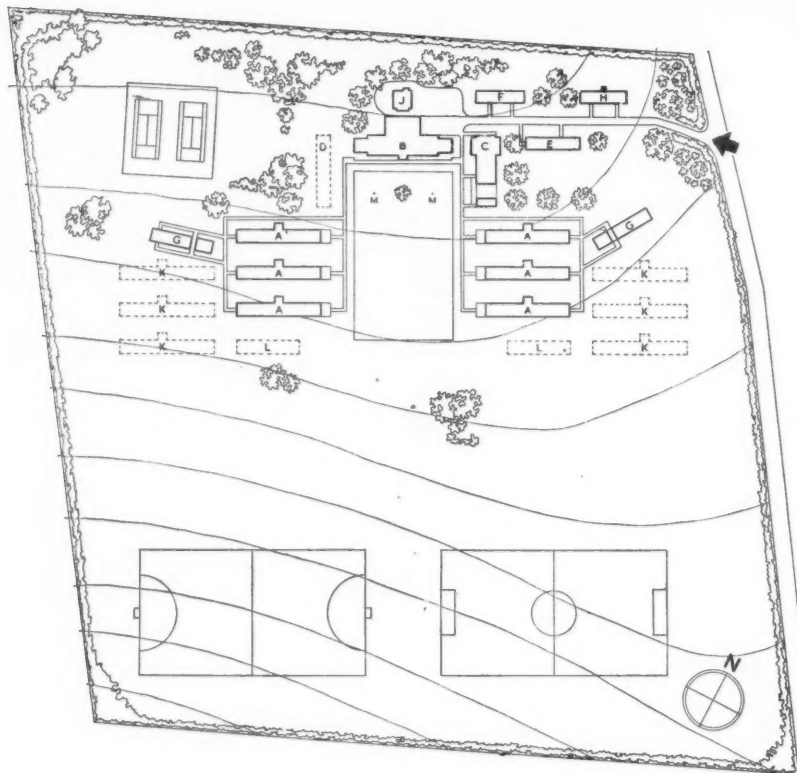
But as the Minister of Health has pointed out, the idea of providing camps to serve the double purpose of schoolchildren in term time and adults in the school

holidays raises two main difficulties: Camps on the dormitory system are unsuitable for family life; and quiet rural sites, though good for school purposes or for evacuation, might fail to provide the attractions of sea, river or mountain which holidaymakers might reasonably expect. For these reasons, then, it was decided that the proposals should be limited to camps for school purposes, but that the companies concerned with building the camps might make arrangements with any juvenile organisations for their use in holiday time, or with holidaymakers of any kind to whom a dormitory plan was acceptable.

Whatever the present limitations of the scheme, the administrative machinery set up under the Camps Act is of such a nature that future expansion should not be difficult, and the Government felt that the scheme would have to be put on trial before it could be pronounced sufficiently successful to warrant expansion on a large scale.

The Purpose of the Camps

In time of war the camps are in no way intended to provide an alternative to billeting, and the present Government billeting proposals remain as they were; they are being built purely as a supplement to the accommodation available for evacuating children or other members of the population from the more vulnerable areas. It is intended that the camps should permit of rapid expansion under emergency conditions, and that they should be capable of accommodating at least



TWO SITES LAID OUT BY SIR
JOHN BURNET, TAIT & LORNE
[FF.]

Left : Laverstoke, near Overton, Hants.
Facing page : Horsleys Green, Bucks.

KEY :

- A. Dormitories.
- B. Dining Hall and Kitchen.
- C. Assembly Hall.
- D. Classrooms.
- E. Hospital.
- F. Staff Quarters.
- G. Lavatories.
- H. House for Camp Manager and Headmaster.
- J. Boiler House and Fuel Store.
- K. Dormitories—future.
- L. Lavatories—future.
- M. Flagstaff.

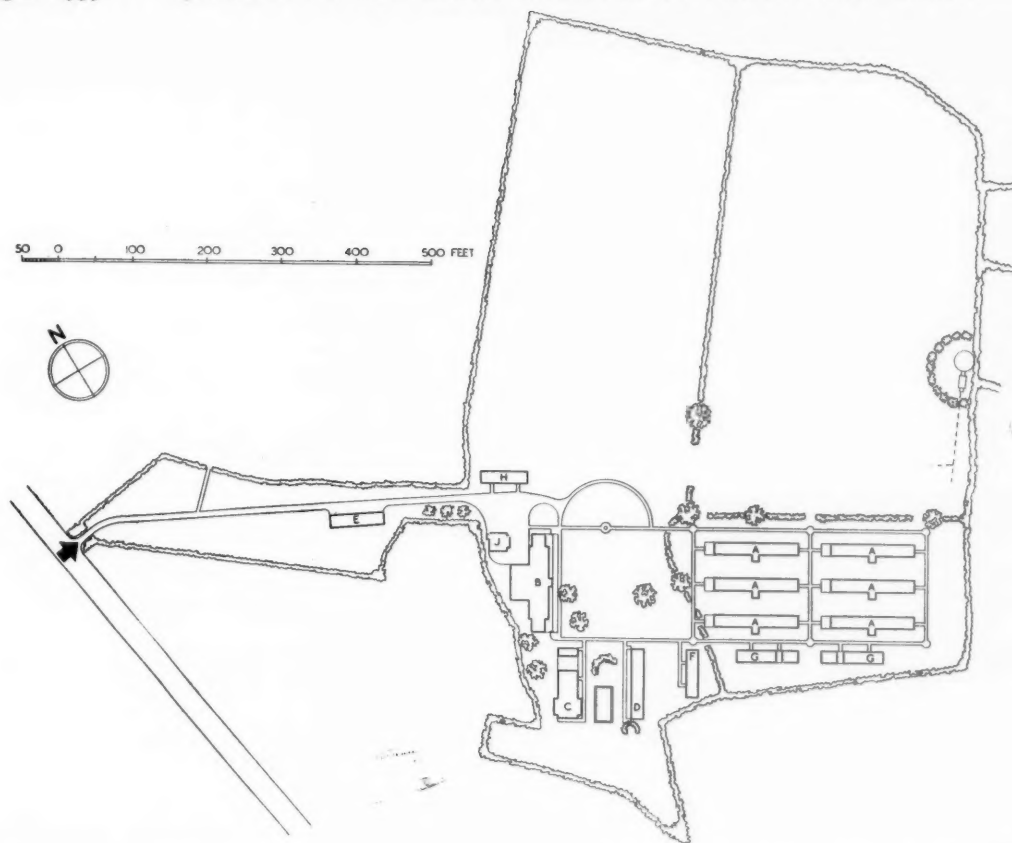
double the number that would normally use them in peace time, and also that with their water supply, lighting, sanitation and cooking facilities they should form a nucleus around which other buildings could be grouped if necessary.

In peace time the camps are to be used mainly to provide school camps for children. Local education authorities already have powers to provide camps for this purpose or to make use of existing ones, but so far relatively little has been done in this direction. There are at present twenty permanent camps for schoolchildren in England and Wales provided and run by local education authorities, between them accommodating about 1,400 children, used partly by weakly and undernourished children from the poorer homes at no cost to their parents, and partly by groups of normal children who spend a week or two at the camps as a change from their town surroundings. The parents of the latter type generally make some contribution, according to their means, towards the cost of food. There are also sixteen school camps in the North of England and in South Wales, provided with the aid of grants from the Commissioner for the Special Areas,

between them giving accommodation for about 4,200 children, drawn largely from unemployed families, or for children whose health needs the benefit of a period of camp life. In Scotland, education authorities have only had power to provide school camps since 1936, and none has yet been built, but last year seven education authorities provided fifty-nine children's holiday camps, and 9,000 children have already passed through them with considerable benefit to their health.

Thus the practice of sending schoolchildren to camps is past the experimental stage, though it may not yet be very extensive. The camps resulting from the new Act are a good step in advance, and if the usual practice is followed and children are sent to them for a fortnight at a time they will be capable of accommodating about 200,000 children every six months; and since they are to be equipped with at least a minimum system of heating there seems no reason why they should not be used for a large part of the year.

It is also intended that in peace time the camps should be used during the holidays by voluntary organisations for juveniles between the elementary school age of 14 to 19.



The Camps Act, 1939

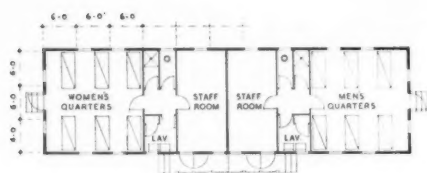
The Camps Act was passed in May this year for the purpose of facilitating the provision of these permanent camps through the agency of non-profit-making companies. The Act is a short measure, of four main clauses only: The first makes the necessary financial provision, and limits the total amount of loans or grants to £1,200,000; the second gives the companies compulsory powers of acquiring land, subject to confirmation by the appropriate Minister—powers of acquisition that apply not only to land for the camp sites themselves, but also to any land reasonably necessary for the preservation of amenities in connection with the sites. The third provides that where plans and specifications have been submitted by the company to the Minister and approved by him, the restrictions of local byelaws or the Planning Acts or the Restriction of Ribbon Development Act, etc., do not apply. The intention of this clause is not to disregard questions of health, road safety or amenity, but merely to expedite matters as much as possible. The fourth clause applies to the companies the provisions of section 37 of the Unemploy-

ment Assistance Act, 1934, enabling the Unemployment Assistance Board to arrange with the companies for the employment of men (particularly unskilled men) to whom the Act applies at rates of wages customary in the district and under conditions suitable for making the men more fit for entry into or return to regular employment.

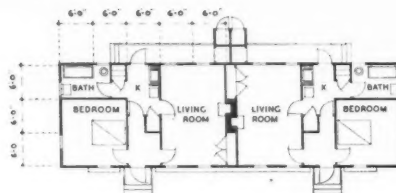
The Companies

The central authorities for carrying out the Act are the Minister of Health and the Department of Health for Scotland, and the work of erecting and managing the camps is being carried out by two companies, one for England and Wales and one for Scotland, operating on a non-profit-making basis. They are the only bodies authorised to operate the scheme and to receive the financial assistance provided under the Act.

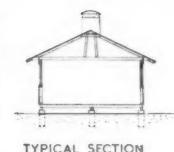
In Scotland it has not been considered necessary to set up a special company, since the Special Housing Association already exists, is a non-profit-making company, and has undertaken the work of building the camps.



Staff quarters for men and women



Camp Manager's and Headmaster's Houses



TYPICAL SECTION

The English company—The National Camps Corporation, Ltd.—is under the chairmanship of Lord Portal, and the other members of the board of management are as follows :—

Dr. S. Gurney-Dixon (Chairman of Education Committee, County Councils Association).

Mr. George Hicks, M.P. (General Secretary, Amalgamated Union of Building Trade Workers of Great Britain and Ireland).

Sir Edward Howarth (formerly Deputy Secretary, Board of Education), who is the Managing Director.

Dame Florence Simpson (formerly Controller-in-Chief, Queen Mary's Army Auxiliary Corps).

Mr. Percy Thomas [F.].

Professor Patrick Abercrombie [F.].

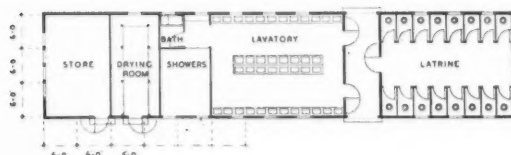
The companies operate under agreement with the Government, and the Government assumes responsibility for a share of the cost in view of the use to which the camps may be put in time of war, providing that those who use the camps in peace time make a reasonable contribution in respect of their use. Half the sums made available to the companies for capital expenditure are treated as grant, and the other half, together with any loans made for management and any incidental expenses, are repayable by annual instalments to include interest and redemption. The Government gives a grant of 20 per cent. to the education authorities for elementary schoolchildren, and a grant of 50 per cent. in the case of secondary and technical schoolchildren.

The estimated cost of each camp was originally given

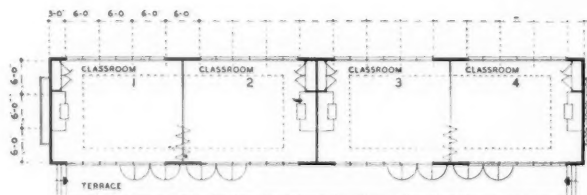
as about £20,000, which would have allowed for the building and equipment of about 50 camps, seven of which were to be in Scotland. But experience has shown that the camps are more likely to cost about £25,000, and in certain districts, owing to the building of militia camps, may cost more. The original estimate, given by the Minister of Health in the House of Commons, has thus been modified, as it was considered that it did not make due allowance for space and amenity and was apparently based on standards for military hutments. About 34 camps will be built in England and Wales, and about five in Scotland.

Camps in England and Wales

The National Camps Corporation have inspected over 165 sites, of which about thirty have so far been found suitable. The camps are being built of standardised timber units, designed by Mr. T. S. Tait [F.], of Sir John Burnet, Tait & Lorne [FF.], consulting architects to the Corporation, and are being laid out on the sites by architects chosen from a panel drawn up in conjunction with the R.I.B.A. The construction of fourteen camps has already been started, and the contracts for others are being let as the layouts of the camps are approved. Contracts for making the standardised timber sections for thirty camps were let in May to four different firms, and the Corporation employs an official whose sole job it is to inspect timber in merchants' yards and stamp it for use. The contract time for each camp is eleven to twelve weeks, and the first camp, at Overton, will be finished by the end of August, followed shortly by the camp at Horsleys Green.



Girls' Lavatory block



Classroom block

Dormitory block

Sites and Accommodation

The following sites for camps have so far been fixed :—

Bucks. : Horsleys Green, Stokenchurch, Moor End.

Cheshire : Marton (Newchurch), Somerford.

Denbigh : Colomendy Hall (two sites).

Derby : Woolley Moor.

Hants. : Overton.

Herts. : Nettleden.

Lancs. : Whalley.

Northumberland : Bellingham, Hexham.

Oxford : Henley, Kennylands, Peppard.

Staffs. : Blithbury, Rugeley.

Surrey : Cranleigh, Ewhurst, Merstham, Tilford.

Sussex : Hartfield, Itchingfield.

Wores. : Cledbury Mortimer

Yorks. (East Riding) : Etton.

Yorks. (West Riding) : Grassington, Linton, Pateley Bridge.

Each camp is planned to accommodate 350 children, either boys or girls, with additional accommodation for the staff. It is considered that the minimum age of children using the camps during peace time will be about ten, but since the camps are to be used as evacuation camps in time of war, and may be used by adults in the holidays, the arrangements provide that the camps could conveniently accommodate adults if necessary. During their use as school camps in peace time it is intended that children should go to them in charge of their teachers and do their lessons in the country instead of in the towns. The schooling would no doubt be much modified, and would largely consist of outdoor activities, such as nature study.

The selection of sites presented some difficulty, as the Corporation were required to place the camps from 30 to 35 miles from evacuable towns, which naturally limited their choice of locality. The essential requirements for a site were piped water supply and main electric light and power, and, where no public sewer was available, that the ground should lend itself to individual sewage works.

The sites vary between 18 and 50 acres, and average 25 to 30 acres. This should allow the children plenty of play space, and avoid trespassing on adjacent land—particularly important in rural camps where there is no beach for the children to use for playing. The cost of roads on the site for the delivery of goods and fuel is an important item in camp planning, and in general these are kept reasonably short, and as much use as possible is made of light paths.

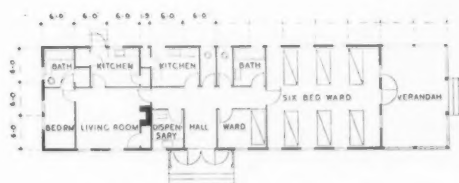
Owing to the timber construction of the buildings they have been separated from one another on the site as much as possible in order to reduce the fire hazard to the minimum.

There are nine standard buildings for each camp, all of one storey :—

Assembly Hall, with stage and changing rooms, and the camp manager's office approached from a covered way linking it to the main assembly hall block.

Dining Hall and Boiler House, with teachers' dining-room and tuck shop, kitchen and stores. The kitchen has a solid concrete floor on rubble, and the boiler house is constructed with brick walls.

Dormitory block, with 58 beds in two tiers. The spacing of 3 ft. 6 ins. clear between each pair of beds was fixed as a minimum by the Ministry of Health after consultation with medical authorities. The beds themselves are of iron, to special design. Further accommodation comprises two single bedrooms for staff supervision, a coatroom, boots and luggage room, and a store and chemical closet approached through an open porch.

*Hospital with Matron's living quarters*

Classroom block, with four classrooms opening on to a terrace, planned in pairs with folding doors between them. Each classroom is intended to accommodate about 36 children. These are experimental, and are only provided in some of the camps, though in all camps provision is made for adding them later.

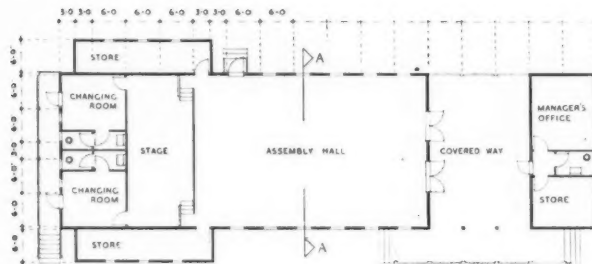
Hospital, with one six-bed ward and one single-bed ward, a dispensary, bathroom, lavatories, kitchen, and matron's living quarters.

Lavatory blocks for boys and for girls. The girls' type

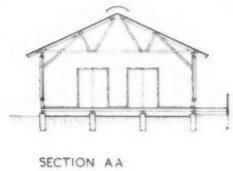
comprises lavatories, dressing-room, bath and shower, latrine, drying room and store. The boys' type is similar, but provides urinals in the latrine, has no bathroom, and in place of the store accommodates lavatories for men and women staff.

Staff quarters for men and women. Two six-bed dormitories, with common rooms and lavatories.

Camp Manager's and Headmaster's houses, semi-detached, and comprising living room, bedroom, bath and kitchen. Sound-deafening is provided between the two houses.



Assembly Hall, with Camp Manager's office



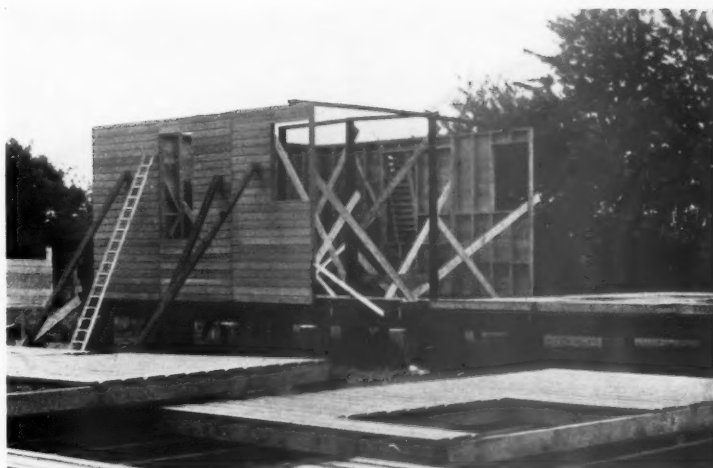
SECTION AA



Boiler House and Fuel Store. This building is in brick

Dining Hall and Kitchen. The Teachers' Room is used for the service of meals

A photograph showing some of the timber wall sections erected at the camp at Horsleys Green, Bucks. Other wall sections can be seen in the foreground



Construction*

Timber was selected as the method of construction because, apart from its good appearance and low cost, it was felt desirable to get the work of prefabrication started while the sites were being obtained, so as to complete erection at the earliest possible moment. Also, there were many firms in the country well equipped to manufacture standardised timber sections, and to start on their production immediately.

The buildings throughout are based on a 6-ft. prefabricated timber wall unit, 10 ft. high from plate to plate in the majority of the buildings, and 8 ft. high in the case of the hospital, staff quarters, lavatories and camp manager's and headmaster's house. These units are formed of $4" \times 2"$ studs, diagonally braced, faced with $7" \times 1"$ rebated cedar weatherboarding, and are brought on to the site complete with window and door frames. For camps in Scotland or other particularly rainy or exposed sites it is intended to provide a layer of building paper under the weatherboarding, but this has not been considered necessary for most of the schemes.

The foundations are of concrete posts cast *in situ*, 12 ins. square and 3 ft. deep, spaced at 6-ft. centres along the length of the buildings, and in most cases at 9-ft. centres across the buildings. The site itself is covered with 2 ins. of ashes and a tar surfacing after removing the top spit.

Two $6" \times 2"$ bearers bolted together span from post to post on the longitudinal axis of the buildings; under the outside walls the inner bearer is in 18-ft. lengths, and the outer in 6-ft. lengths to allow a $2" \times \frac{3}{8}"$ wrought-

iron strap cast in the foundations to pass up between the bearers to the joists and wall sections.

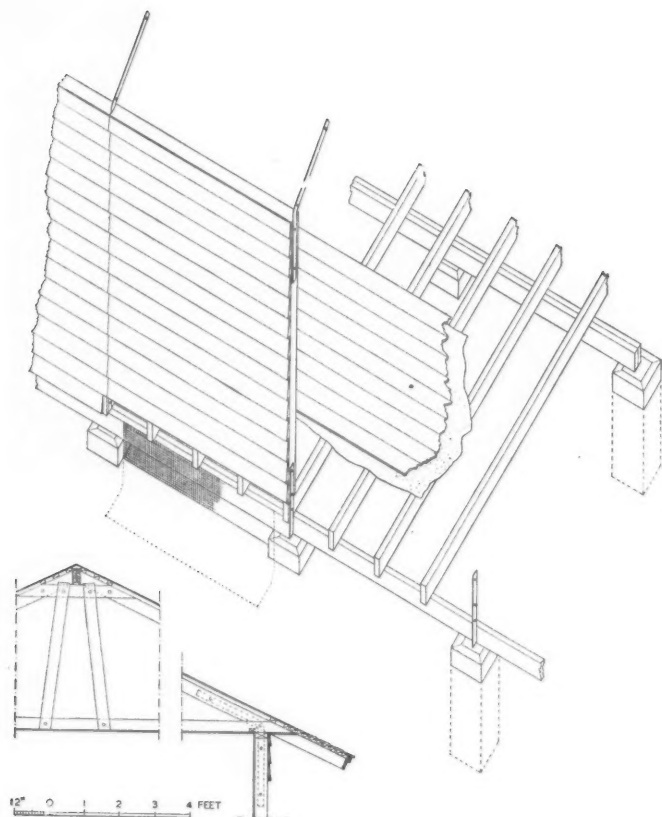
At 18-in. centres $6" \times 2"$ floor joists span from bearer to bearer, and are covered with an untearable building paper and $\frac{11}{16}$ -in. T. & G. flooring. The floors are not in prefabricated sections. All woodwork under the floors is dipped with creosote or other timber preservative. At 6-ft. centres the floor joists are bolted to the wrought-iron ties to the foundations.

The prefabricated wall sections rest directly on the floor joists, the wrought-iron ties passing up about 1 ft. between adjacent sections. At the head of the wall sections corresponding wrought-iron knee braces are let in between the sections to provide a fixing to the rafters and cross-bracing to the whole structure. Adjacent sections are secured together and to each tie and knee-brace with bolts. The weatherboarding laps about 1 in. over the stud of the adjoining section, and no cover fillets have been considered necessary. One additional course of weatherboarding is fixed on the site to cover the ends of the floor joists.

The rafters are brought on to the site in prefabricated sections, each section being complete from eaves to ridge, 6 ft. wide, and formed of four $4" \times 2"$ rafters battened with $2" \times 1"$ battens at 5-in. centres. These sections are bolted together through the wrought-iron knee braces at the head of the wall sections, and to a $4" \times 2"$ collar beneath the ridge plates. $4" \times 2"$ ceiling joists are fixed on the site, and $4" \times 1"$ ties are bolted to the collars and joists. The roofs are covered with Cedar shingles. At the gable ends the framing and weatherboarding above the head of the prefabricated wall sections is built up on the site.

At all external corners the wall sections are bolted together with wrought-iron angle cleats at the head,

* Since the method of construction is experimental, and the architects are constantly varying and improving details during the progress of the work, it is hoped to print further notes in a future number of the JOURNAL in order to make generally available the experience that has been gained on this work.



Axonometric, showing the method of erection of the floors and wall sections. The bearers under the outside walls are cut in two lengths, the inner bearers being 12 ft. long, and the outer ones 6 ft. long in order to fit between the wrought iron straps cast into the foundations

A section through the eaves and ridge of a standard roof spanning 18 ft.

centre and cill of the framing, and the weatherboarding finishes up against vertical wood fillets.

Internally most partitions are $3" \times 2"$ stud built up on the site, and the general internal finish throughout is a $\frac{3}{8}$ -in. plasterboard on the walls and a $\frac{1}{4}$ -in. plasterboard on the ceilings. Walls and ceilings are papered and distempered.

In the lavatory blocks the walls are faced with an asbestos cement sheet with a smooth polished surface.

To prevent vermin from getting under the structure a $\frac{3}{8}$ -in. wire mesh is fixed between the foundation posts on the perimeter of the buildings, secured to the bearers and taken down about 1 ft. into the ground. Where the buildings are on a sloping site $6" \times \frac{3}{4}"$ sawn fir boards are fixed between the foundation posts, nailed to vertical battens cast in the posts. The wire mesh is fixed to the bottom boards, and a $\frac{3}{8}$ -in. ventilation space is left between the top boards and the underside of the bearers.

All Western red cedar is left untreated. Window frames, doors, posts and rails to loggias, etc., eaves soffits and window shutters are painted.

Heating, Ventilation and Sanitation

The dining-room block and the assembly hall have louvre ventilators on the roof ridges, and all other blocks have circular louvre ventilators to the roof space in the gable ends.

All heating is from the central boiler house with underground mains. The huts, with the exception of the staff quarters, which are fitted with radiators, are heated with single pipe ring mains at skirting level. The main function of this heating is to keep the buildings dry in winter.

Water sanitation is used in all camps, either connected to main drainage or to a private disposal plant.

Book Reviews

MODERN ARCHITECTURE

L'ARREDAMENTO MODERNO. 2nd Series. By Roberto Aloï.
4to. 35 pp. + 786 photos. Milano: Ulrico Hoepli. 1939.
£2 5s.

As we all know, architectural and decorative design in Italy is developing with remarkable freedom from the dictate of the northern half of the axis. Apart from a great number of very lively and stimulating creations of Italian architects and decorative designers this development is finding expression in the production of architectural books and periodicals, which, starting from practically nothing, has reached a very high standard in the last decade. The new edition of Aloï's book—the first series being issued in 1934—must be considered a most valuable enrichment not only of Italian but of international professional literature. For I know of no publication dealing as extensively and as impartially with the subject of international modern interior decoration. Publishing 786 pictures of the work of 470 artists (as against 360 in the first series from 20 countries, the book certainly represents a record, at least in quantity.

The value of a book composed exclusively of photos of recent work of contemporary artists, without any explanatory or commentary text, can only consist in the selection and in the arrangement of the material. The author's personality, conviction and tendency, if there is any, will be expressed by that selection and it is only to that selection that our agreement or disagreement can refer. Now, as far as this selection is concerned, we must admit the author to be broadminded and unprejudiced and not guilty of neglect or injustice to any of the many more or less "modern" tendencies now traceable in Europe or the United States. If he had been guided less by the desire to give the completest possible survey of the existent situation and more by an educational intention of pointing out exemplary work, the result would probably have been a smaller book with a shorter list of contributors. But according to Giuseppe Pagano's preface, the book includes the full range from the "tradizione neoclassiche" to the "funzionalismo plu lirico" and the "roccocó razionalizzato" and the "austera povertà dei costruttori."

Accordingly, what you are offered looks more like the sight of the raging sea than that of the quietly flowing stream of steady evolution. But this undogmatic attitude is certainly one of the greatest merits of the book. By presenting the work of most diverse temperaments, it cannot fail to exercise a stimulating effect on the most diverse temperaments of readers or students. Thus it achieves a legitimate aim and fills a real purpose.

The arrangement of the (by the way excellently reproduced) photos has been made in thematic order. No subdivision into strictly distinct subjects with separate headings has been made, which does not facilitate the use of the book for reference. The geographical or national principle of arrangement has not been used, nor has an attempt in that direction even been made in a separate index. Thus the editor has escaped certain difficulties which might have turned up, especially with regard to Central Europe, while the book was in course of print. It may be due to technical difficulties of the same nature that

we miss a number of eminent names among the contributors. It is not quite clear why the explanatory remarks have not been put on the same page with the pictures to which they refer, but have been united in a separate index. Another question we may be allowed to ask is whether the Scandinavian nations would not have deserved a little more attention and whether, if lack of space was the reason for it, the necessary space could not have been found at the expense of the Romance nations.

There is nothing more by way of criticism that can be said. We must fully admire the work of both author and editor who have mastered the enormous task of collecting, selecting and arranging the overwhelming mass of material and presenting it with such technical perfection.

If you cannot help feeling a little uneasy after having looked through the book, however, is certainly not the author we have to blame, but rather that state of affairs he has undertaken to bring before our eyes. The first series of 1934 seemed to show a greater amount of stimulating forces and, compared with the new series, seemed to justify higher expectations for future evolution. Some of the most valuable and promising tendencies seem to have remained undeveloped or to have been lost altogether. It is disappointing not to find any work of the revolutionary vigour and spiritual purity of Mies van der Rohe's interiors in his house in Brunn. The new book hardly shows new developments inspired by work of that kind, nor do we find there work which we can sincerely think is capable of fertilizing future development to the degree that we thought Mies van der Rohe's work would. Are we going to lose territory which we had already gained? Are we getting away from that unity of style which we thought we were approaching? Perhaps the next edition of Mr. Aloï's book will answer these questions.

FELIX AUGENFELD

SPORTS BUILDINGS

ENCYCLOPÉDIE DE L'ARCHITECTURE. Centres de Loisirs, Stades-Piscines. 2nd series. 4to. 86 pp. Paris: Morancé. 1939. 75 francs.

This very attractive publication consists of a collection of excellent photographs, explanatory plans and sections, and brief reference notes. There is no reading matter nor, indeed, is it required, for the photographs and drawings tell their story with a directness that architects will appreciate. Among the subjects dealt with are sports pavilions and arenas, club buildings and swimming baths, and examples from as far afield as France, Tokyo, Palestine, Holland and Folkestone are included. But it is for the illustrations of the "Centres de Loisirs" which have been recently built in France that the book is of absorbing interest.

In several of the examples given, the Frenchman's traditional sense of scale is at once apparent and this is particularly noticeable in the swimming baths building at Bordeaux, designed by Monsieur Madeline.

The plan of this building is laid on broad lines; the scheme includes one large open-air swimming bath with spectators'

seating and a smaller covered swimming bath and also a large gymnasium, and in many respects it might serve as a model for similar establishments in this country.

It is curious, however, that in a scheme of the importance of this building at Bordeaux, reliance should be placed on side lighting by means of large folding windows for the covered swimming bath, whereas top light amplified by side windows is the better method to adopt.

The bathing establishment at the Garden City of Chatenay Malabry, near Paris, is planned on a corner site on generous lines by Messieurs Bassompierre, de Rutté et Sirvin. The covered swimming bath is a reinforced concrete structure with a cantilever roof and occupies one wing of the building; the other wing converging on the entrance vestibule (where the two wings meet) is devoted entirely to the plant and machinery, on the ground floor with dressing accommodation above.

It appears that contrary to English practice, there is no separate provision for the sexes; dressing boxes are provided for the use of men and women in one large dressing room, and again in comparison with English standards, the lavatory accommodation is very meagre. Pre-cleansing facilities are provided but these operations take place in full view of the swimming bath. A circular chimney stack forms the central feature of the entrance façade.

Messieurs Le Corbusier and P. Jeanneret are represented by photographs of a model and various drawings and perspective sketches of a proposed stadium. This very remarkable and interesting scheme comprises a covered amphitheatre with seating for 100,000 persons, a stage for plays, a speaker's tribune, an open-air cinematograph, lawns for gymnastic displays and an artificial hill for Olympic tableaux. The access to the amphitheatre seating is by means of five wide inclined ways or boulevards planned at different levels and cut out of the hillside, enabling an immense number of spectators to enter and leave the building in a short space of time. A mast about 330 feet high, cigar shaped, and constructed of metal is planned behind the cinematograph screen. This structure as well as containing wireless apparatus is intended to support the ropes of a huge velarium with which the whole arena can be covered.

The large football stadium at Rotterdam is a steel structure and comprises a large arena of amphitheatre seating planned on four sides of the playing field. The principal seating provision is at the first floor level, but an additional continuous gallery is carried over the main gallery by means of a bold cantilever system, which without any additional vertical support is a structural *tour de force*. Messrs. Brinkman and Van der Vlugt are the architects.

At Buc, in France, the pavilion of the Roland Garros Club was designed by Messieurs E. Beaudoin and M. Lods. The building contains the accommodation usually provided in an aviation club, and is remarkable, inasmuch as it is primarily portable. It is constructed of sheet metal sections with no rivets and can be erected by unskilled labour. All the joinery work and internal linings were prepared in workshops and were fixed in position with bolts.

The Tokyo Golf Club of modern French design is the work of Monsieur Antonin Raymond and in addition to the normal club-house facilities, which are provided on a lavish scale, a swimming bath is also included in the scheme.

KENNETH M. B. CROSS [F.]

SUGGESTIONS FOR THE PLANNING, CONSTRUCTION AND EQUIPMENT OF GYMNASIA IN ALL TYPES OF SCHOOLS AND EDUCATIONAL ESTABLISHMENTS, 1938. Revised Edition 1939. Board of Education Physical Training Series No. 14. H.M.S.O. 1s.

This memorandum, first issued in 1925, was enlarged and revised in 1938, and now has had further revisions made. In conformity with the Board's excellent practice in architectural matters, the purpose of "this pamphlet is not to lay down rules and regulations . . . but rather to serve as a brief guide to the requirements of a modern gymnasium."

All physical, planning and equipment needs and recommended solutions are stated; typical plans and elevations are included, making the pamphlet an essential item of the office equipment of every architect designing gymnasium buildings.

Twice in the text underlined paragraphs in bold type call attention to the need for consultation in the early stages between the architect of a gymnasium and the manufacturers of appliances; a warning which refers obviously to the failure of architects in the past to design gymnasiums really suited to modern needs and equipment.

THEATRE

PROSCENIUM AND SIGHT-LINES: A COMPLETE SYSTEM OF SCENERY PLANNING. By Richard Southern. 8vo. 235 pp. London: Faber & Faber. 1939. 12s. 6d.

Mr. Southern is a scholar, an actor and an artist, and incidentally an extremely good writer, this book, therefore, has unusual merits; his subject is one that has received insufficient attention. "All setting-design . . . and all placing of the elements of a setting . . . is dependent on sight-lines." As Mr. Southern says, sight-lines "afford a method of thinking about a stage," they are the controlling element in stage design, not merely in the design of settings but in the design of the actual theatre itself.

This book is vastly more important to architects than Mr. Southern's previous excellent work on stage settings, it goes further back to the roots of stage craft, since the actual form of the drama even is controlled by the size, type and sight-lines of the actors' platform.

A small part of the book has already been printed in this JOURNAL* in which Mr. Southern analyses the five principal types of set and the "six sides" of a stage; this analysis is extended in its final form. After this general analysis the simple application of sight-lines theory in relation to proscenium, borders and side curtains is outlined as an introduction, prior to the precise development of the idea, to give, as it is bodily described, "a sure and certain guide for the fitting of every style of setting to any size of stage." Eight essential measurements of the proscenium opening are defined as the basis of all successful stage and scene design and twelve accessory measurements given which prove essential sometimes and always helpful.

The latter half of the book applies the rules and the measurements in the design of sets, discussing on the way numberless matters of stage design of direct interest to architects such as the sections of proscenium walls, cycloramas, plaster skip, false sides, lighting, etc. Many architects are indirectly or

*The Scene Designer's requirements in planning small stages for play acting. R.I.B.A. JOURNAL, 20 December 1937.

directly responsible for stage designing ; this is a book that should be helpful to them all, whether their function is to be the architect of a large city theatre or merely the architect friend of the vicar's wife who gets called in to help with the village amateur show.

SCENERY FOR THE THEATRE : THE ORGANISATION, PROCESSES, MATERIALS AND TECHNIQUES USED TO SET THE STAGE. By Harold Burris-Meyer and Edward C. Cole. 8vo. 471 pp. and 575 illustrations. New York : Harrap. 1939. 30s.

The publication of a comprehensive book on stage work in the professional theatre is a welcome event as, apart from certain German works, this is a subject which has hitherto received little attention. Writers have treated the amateur theatre better, but have assumed that, owing to the restrictions under which it usually works, it cannot attain the stage standards of its professional counterpart ; in consequence, much ground has been left uncovered. This is the state of affairs that the authors seek to remedy and at the same time to provide the theatre apprentice with a fund of knowledge which he could otherwise acquire only after much labour. They are well qualified to deal with this subject : Mr. Burris-Meyer is Assistant Professor at the Stevens Institute of Technology, Jersey City, and Director of the Stevens Theatre ; while Mr. Cole is Assistant Professor in the Department of Drama at Yale and Technical Director of the Yale University Theatre. As consultants, too, their work in the theatre is well known. Writing with true transatlantic thoroughness, they discuss at length every aspect of stage work, but the subject is approached with no narrow angle of vision. Before discussing the design, manufacture and use of scenery, the technical and non-technical aspects of the theatre which impose limitation on the scenery are first surveyed. To this end, the opening chapters are devoted to a short statement of those elements in the history of the theatre which affect present-day scenery, a résumé of the characteristics of theatres, an outline and brief analysis of theatre organisation and a statement of the process by which a production is planned. With the background once established the authors proceed with the main part of their thesis, describing in the fullest detail scene construction, materials, types of scenery, scene painting, stage machinery, handling, rigging, properties, stage management and, most thoughtfully, the disposal of scenery at the end of a show. The book closes with a bibliography and an index.

The thoroughness with which the work has been carried out deserves high praise ; every material used in the theatre is examined by means of elaborate schedules, every instrument or piece of apparatus is illustrated, the pros and cons of alternative methods are compared in twin columns in the best Banister Fletcher manner, and the cost of every article mentioned is carefully given in dollars and cents. In short, the authors have produced as complete a survey of modern American stage practice as one could wish for.

This is scarcely a book for the general reader, though the essay on the State of the Theatre would appeal to the play-goer. English work differs in details from that described here, but the principles remain, thus the architect and designer have at their disposal an invaluable work of reference on equipment as well as advice on planning, acoustics, colour, and so on. But to the amateur, rashly undertaking to stage a show, the book is a delight. Every possible labour that he may be called upon to perform, either mental or physical, is described in

full for him, from the study of sight lines to the making of noises off.

As for the theatre apprentice, for whom the book is written, everything is explained for him, and he has no excuse for setting about a job in the wrong way. The advice he receives is the result of many years of actual production, but being presented in the form of a text-book in the grand manner, it has perhaps a somewhat formal and academic air, inseparable from counsels of perfection. This may be unfortunate for the amateur on the look-out for tips and short-cuts, but what the amateur loses the apprentice gains ; having been given the principles, he is free to use his intelligence and initiative on those details which can only be settled on the job.

F. C. GREGOR GRANT [A.]

HOUSES

HOUSING FOR THE MACHINE AGE. By Clarence Arthur Perry. 8vo. 262 pp. + pl. New York : Russell Sage Foundation. 1939. \$2.50.

Publications bearing the hall-mark of the Russell Sage Foundation are always welcome and this thoughtful book by Mr. Perry is no exception. It is a most thorough study of the conditions essential to the production of cheaper housing. In a well-balanced work the author manages to combine the technical, social and financial details of the intricate production problem with the more general consideration of legal powers and residential planning.

Two major conclusions emerge from this study : first, that cheaper housing can only be obtained by application of " machine age " technique, and that the most serious obstacle to the formation of efficient Construction Corporations large enough to operate economically in the low-cost housing field is the difficulty of securing large areas for development ; second, that the environment of housing is even more socially important than the actual housing, and since individual dwellings or blocks of flats can rarely provide a background for a full life, large-scale planned development must be encouraged.

The argument leading to these conclusions touches such matters as the application of pre-fabrication and industrial technique to housing ; the excessive cost of materials, due to middlemen's profits and small-scale ordering ; causes of " blight " in residential areas ; the waste involved by premature sub-division ; and the advantages and space-requirements of Neighbourhood Units.

The Neighbourhood Unit is not unknown in this country, but it may not generally be realised that Mr. Perry's earlier monograph in Vol. 7 of the " New York Regional Survey " marked the birth of a planning theory which is now widely accepted.

In the book under review a full description of this theory is followed by an ambitious scheme by which a sufficiency of large tracts may be acquired by local authorities and placed at the disposal of big Construction Corporations. The author envisages pooling of ownerships to facilitate the assembly of land (enforced by law, if necessary) and the rebuilding of depressed urban areas with blightproof neighbourhood development. Working on a large scale of construction and with the confidence derived from government sponsorship and from the knowledge that well-planned property will retain its value, the constructing corporation would be

able to spread its overheads and produce not only cheaper houses but, at the same time, a well-rounded environment.

The text of this valuable book is well illustrated with drawings and photographs, including several studies by the author and others for assembly and redevelopment of Neighbourhood Units, together with an appendix containing further details of these projects.

F. HUDSON LITTLER [A.]

FLATS, MUNICIPAL AND PRIVATE ENTERPRISE. 4to. 288 pp.
Publ. by Ascot Gas Water Heaters. London. 1939.

This is a good advertising publication which architects should find a useful index to the best recent flat building in England. Thirty-two schemes are illustrated by photographs and typical floor plans, a site plan and a page of statistical information.

There are five prefatory articles. Mr. de Soissons describes the need for housing and the ideas controlling the work of the better-minded architects and authorities. He refers to the degree of standardisation that has now been attained so that the architect's skill is now chiefly required "to mould these standardised units into good architectural groups . . ." He suggests that brick and pitched roofs provide the most economical construction, which is borne out by the fact that only two or three of the thirty-two representative buildings are of anything else than brick, and there are comparatively few flat roofs. Mr. Bagenal, who writes on planning against noise, seems to have slight respect for the people whose ideas of life can be satisfied in a flat. His eight pages are full of useful advice on the soundproofing of flats: "better quality, more solid building is the first requirement."

Mr. E. L. Bird, on A.R.P., suggests that the dangers have been exaggerated. He describes the risks against which protection can be provided and the structural and other measures most suitable to adopt. Mr. Howard Robertson compares the planning and general standards of middle-class flats in the U.S.A., on the Continent and in England; and Mr. Yerbury does the same in regard to working-class flats. Mr. Wells Coates damns almost the whole of contemporary building in a chapter on dwellings for to-morrow, which is, by the way, an extremely good general theorisation of the bases of modern architecture. Finally, in this introductory series of chapters, Mr. Fry and Miss Denby describe Kensal House.

CREMATORIA

DIE FEUERBESTATTUNG. By Fritz Schumacher. 4to. 126 pp.
Leipzig: Gebhardt's Verlag. 1939.

Dr. Fritz Schumacher [H.C.M.] has sent the R.I.B.A. library a copy of this, his latest book. There is very little published information useful to architects on the design of crematoria except for the illustrations in architectural papers, so that Dr. Schumacher's book fulfils a real need.

The first chapters describe the historical development of cremation and the latest methods of cremation; these are well illustrated with photographs, sections and plans of furnaces. The next section illustrates crematoria buildings by photographs and plans of schemes dating from that at Gotha (1879) to some of the most recently built crematoria in Europe and the U.S.A. No scheme of importance seems to have been omitted. The only criticism is that some of the plans have been reproduced from drawings not prepared for

the drastic reduction required to bring them down to page width.

The last main chapter illustrates columbaria and gardens, and the book is concluded with a reprint of the German cremation regulations, a list of about 120 German crematoria, and an extensive bibliography.

Dr. Schumacher has produced a useful book which is likely to be accepted as the standard architectural guide to the subject for many years.

BUILDING BYELAWS

MODEL BUILDING BYELAWS ILLUSTRATED. By G. Eric Mitchell. La 8vo. 172 pp. London: Batsford. 10s. 6d. net.

The present reviewer has long had a lurking suspicion that the enmity displayed by so many architects towards "byelaws" is at bottom an artistic feud: a properly drawn byelaw is like a sonnet, a work of art in words, just as a properly drawn plan is a work of art in another medium. The architect has no hatred for the sonnet, because he is not required to translate it into bricks and mortar or even to reproduce it on his drawing board. If law could be expressed in lines and shading, the architect would cease to feel antipathy. In the book before us, Mr. Mitchell has done what can be done in this direction. The Public Health Act, 1936, removed many of the technical legal difficulties created by obsolete statutes for the draftsmen of byelaws framed in earlier years, and made it possible for the present edition of the model byelaws to come much closer to the realities of modern building. But the substantial changes made by that Act, both in the governing legislation and in the procedure for administering byelaws, have unavoidably left both the public official and the experienced practitioner to some extent at sea, and such a work as this of Mr. Mitchell's will afford much-needed anchorage during the period of transition. There is a specification on pages 127 to 160 of the book for the construction of a dwelling house in accordance with the model byelaws. Although it is important to remember that it is not the specification or the illustrations, but the text, and the text not of the model byelaws but of the byelaws actually adopted by the local authority, which will determine what is needed in order to comply with the law, this specification and the copious diagrams, facing almost every page, will be of great help to an understanding of the constructional requirements of the byelaws.

The general arrangement of the book should prove practical; it reprints the model byelaws straightforwardly with illustrations, then gives explanations of certain difficult clauses, then illustrations of some common building defects. It also includes a chapter relating the B.S. Specifications to the model byelaws.

The author is an associate of the Institute, and a member of the Royal Sanitary Institute, as well as of the Institution of Municipal and County Engineers, and is surveyor to the Cromer Urban District Council. He is thus well qualified to produce a work which shall be useful not merely to officials and committees but to architects and builders. He expresses in his preface the hope that the book will be useful also to students for the examinations of the above-mentioned and other professional bodies, and the hope seems to be well founded. It has always to be remembered that the model byelaws have no relation to the London Building Acts or to the byelaws of the London County Council, but to those concerned with building elsewhere in England and Wales this book will be very helpful.

A. N. C. S.

HISTORIES

A VICARIOUS TRIP TO THE BARBARY COAST. By *Mary Berenson*. 8vo. Pp. viii, 146. Map. 23 Plates. London: Constable. 1938. 7s. 6d.

If it were not for the extra mental and artistic perception of the authors of this book, it might be classed as one of the globe-trotting ones with which we are all too familiar. It is correct to say "authors," as Mrs. Berenson writes as an invalid at home who did not accompany the travellers, quoting largely from the letters of her husband (Bernhard Berenson) and others, written to her during the trip. She has produced with very great skill a narrative which connects flowingly, without perceptible cleavage, her own monologues and those of the diarists. The book is a pleasant and meditative account of the essential impressions of a journey from Florence to Tripoli and Cyrene on the North African coast, via Naples and Palermo, and back again by Syracuse, Messina, Reggio and Naples. Of course, it all depends on how it is done; and here we have the same friendly, almost caressing way that is shared by Norman Douglas of taking the reader along with you. Vivid impressions and comparisons, and fine judgments, drawn from minds sensitive to all kinds of artistic effort and with a very wide range of scholarship, would be expected—the resemblance of Cyrene to Delphi, Apollonia being Itea; Roman carvings recalling paintings at Orvieto and Florence; the columns at Pæstum "glowing as with a light from within"; and this about the buildings at Leptis—"truly imperial, even in their ruins, for one suspects that ruins suggest sublimities that the completed building may not have attained. In their present state they are evocative and romantic to a degree that it would be hard to exaggerate. One wants to look and dream, and dream and look."

The book can be skimmed through in little over an hour, so that he who runs—if he is able—may read; and having read, might not want to return, except for an occasional reference. This is not a damaging criticism, as the book attains its purpose by a lightness of touch which conveys, through all its wealth of allusion, an unforgettable general picture. The travellers were splendidly entertained by the right people. The experiences with Giacomo Guidi, the architect Carbonara, Zenotti Bianco, and others of the same kind, wake the warmest recollections of those who have been privileged to know any of them or their like; those courteous, generous-minded and singly devoted architects and archaeologists that Italy is fortunate to possess in her lonely outposts as well as in her great centres. "... he drew them at once into his study, where he kept the most precious objects that had been discovered in Tripoli. While he proudly showed these he talked and talked. Among many things he said what our travels in North Africa and Syria had led us to believe, namely, that the Greeks were the real people and the real artists." The exponent here was no professional archaeologist but Maresciallo Balbo.

The illustrations are well chosen and taken from excellent photographs. Noticeable ones are "Cyrene Strangling the Lion" (Pl. VIII), "Mænad" (Pl. X), "Phidian Head of Zeus" (Pl. XII), and a very intriguing "Fountain" at Gadames (Pl. XVIII), where "the streets are tunnels under the houses, lighted from time to time by walls or larger court-

yards. They are lined by stone benches, built out solid from the walls of the houses like those of Florentine palaces."

THEODORE FYFE [F.]

THE HISTORY OF THE GREEK AND ROMAN THEATRE. By *Margarete Bieber*. 4to, x + 468 pp. + 566 illus. Princetown University Press: Oxford University Press. 1939. 34s.

Miss Margarete Bieber, or rather Professor Bieber, Ph.D., has just published a book with 566 illustrations on the Greek and Roman Theatre. Its title includes the word "History," a word that has been in the past a disappointment to so many readers as it has so often stood for all that is pompous and verbose in literature. One has staggered through so many "histories" and learnt nothing, but here is a work that is far from having any of these faults. It is the history that we have always wanted, one that the young student can pick up and devour with excitement, or that the professor can read over and over again with pleasure.

Chapters V and VI, "The Development of Theatre Building in the Classical Period" and "Scenery and Mechanical Devices," and Chapters XIII and XIV, "The Development of Roman Theatre Building" and "Roman Theatre Buildings in Italy and the Provinces during the Empire," are all of particular interest to the student of architecture. The ease with which Professor Bieber guides one through these known and unknown theatres of the past is inspiring. Priene—Athens—Thorikos . . .

After reading the first four chapters of the book it is very easy to see why the theatre of to-day is in form and content such a pitiful caricature of a once inspiring and mighty power in civilisation. Commercial competition now leads playwrights, architects and actors alike by the nose.

There is even a scheme on foot now in London to build something called a "National Theatre." Having read the prospectus just after reading Professor Bieber's book I feel more inclined than ever to hope that such a scheme never succeeds, for it can only be a monument to record the depth to which the appreciation of drama has sunk and to show how, in comparison to the mighty empires of the past, the greatest empire of to-day has forgotten how to record with dignity the path in which it treads.

This *History of the Greek and Roman Theatre* is a fine book and should inspire all those interested in the ideals of drama and architecture to do something that will in its turn be an inspiration to others in another 2,500 years time.

EDWARD CARRICK

GREEK COMMERCIAL BUILDINGS

THE JOURNAL OF THE HELLENIC SOCIETY, VOL. LVIII, PT. I

In the last number of the *Journal of Hellenic Studies* (Vol. LVIII, Part I, 1938) the first article is a long account by Sir Leonard Woolley of his "Excavations at Al Mina, Sueidia," near Antioch on the Orontes, Syria. This includes a description of the pre-Greek, Greek and early Hellenistic commercial buildings (see especially pages 12 to 15), the ruins of which are illustrated in the accompanying plans and drawings made by Woolley and Mr. Arnold Silcock. Figures 3 and 4 show reconstructions of typical warehouses in this hitherto unknown harbour of antiquity, and photographs of the architectural and other finds appear in the first group of plates at the end of the volume.

Accessions to the Library

1938-1939—XV

LISTS of all books, pamphlets, drawings and photographs presented to or purchased by the Library are published periodically. It is suggested that members who wish to be in close touch with the development of the Library should make a point of retaining these lists of reference.

Any notes which appear in the lists are published without prejudice to a further and more detailed criticism.

Books presented by publishers for review marked

Books purchased marked

* Books of which there is at least one copy in the Loan Library

ARCHITECTURE

ARCHITECTURAL ASSOCIATION

Diary & year book. 1939.

[? 1939.] R.

P.P. S.R. 72 (05)

SURVEYOR, ENGINEER, AND ARCHITECT, *journal*

— (Robert Mudie, ed.) For 1840, -41, -42, -43.
40. Lond. 1840-43. (£1 10s.) P.

THEORY

MS.

72.01

WRIGHT (FRANK LLOYD)

Lectures. (Sulgrave Manor Board, Sir George Watson lectures. Delivered at R.I.B.A.) (Reporter's notes. With pref. by F— L— W—.)

typescript (pref. in MS.) 4 batches in 1. 12 $\frac{3}{4}$ ". 1939.

72.01 : 7.01

RICE (D. TALBOT)

The Background of art. (Discussion books, 64.)

7 $\frac{1}{4}$ ". 172 (incl. xii) pp. + xvi pls.
Lond.: Nelson. 1939. 2s. P.

72.01 : 8—1

STREET (A. E.)

Poems.

6 $\frac{1}{2}$ ". (x) + 42 pp. Bath. 1939.
Presented by Mrs. A. E. Street.

HISTORY

Inf. file

72.03 (41.5)

IRISH TIMES, *newspaper*

— Architecture. Issued in commemoration of the Centenary of the R— I— of the A— of I— in conjunction with the R.I.B.A. Conference . . . (Suppt., 21 June.)

17 $\frac{1}{4}$ ". 1939. R.

72.03 (42.1)

PERKS (SYDNEY)

* Essays on old London.

11 $\frac{1}{4}$ ". Camb.: U.P. 1927. (12s. 6d.) Presented. To Loan Library.

72.03 (485)

HAHR (AUGUST)

Architecture in Sweden. &c. (New Sweden tercentenary publications series.) (Mrs. J. S. Herrström, trans.)

8 $\frac{1}{2}$ ". 129 pp. incl. pls. Stockholm: Bonniers. 1938.
(6s.) P.

S.R. 72.033-4/5

BLOXAM (M. H.)

The Principles of Gothic architecture &c.

2nd ed. 12mo. Lond.: 1836. (1s. 6d.) P.

WITTKOWER (RUDOLF)

Carlo Rainaldi and the Roman architecture of the full baroque. Trans. by Christina Bevan. (From Chicago, Univ. of C—: College Art Assocn., The Art Bulletin, xix, 1937.)

12". [Chicago. 1937 or after.] Presented by Dr. Wittkower, the Author.

72.034 (45) : 92 R

72.034 (45) : 92 S

LANGENSKIÖLD (ERIC)

Michele Sanmicheli, the architect of Verona. His life and works. (Uppsala-studier i arkeologi och konsthistoria, i.)

12". xvi + 279 pp. + pls.
Uppsala: Almqvist & Wiksells. 1938. (£2 10s.) P.

DRAWING

72.064 : 608.4] 662.1

BROCK (A. ST. H.)

Pyrotechnics: the history and art of firework making. [Including architectural model.]

9 $\frac{3}{4}$ ". xsv + 197 pp. + pls. Lond.: O'Connor. 1922.
Presented by Mr. Alan Brock [A.].

S.R. 72.064 : 742

TREATISE UPON PERSPECTIVE

A Complete, scientific, and popular treatise upon perspective, &c. By a pupil of . . . J. P. Thénot. (Pref. by A. W. Hakewill.)

1a. 80. Lond. 1836. (5s.) P.

VOCATION, PROFESSIONAL PRACTICE

72.07 : 35 (064)

BUILDING CENTRE

Exhibition (First) of official architecture. Arranged by the . . . "Official Architect," *journal*. . . 1939.
pam. 9". Lond. [1939.] R.

INCORPORATED CLERKS OF WORKS ASSOCIATION OF GREAT BRITAIN

Year book. 1939-40 edition.

[1939-] R.

PLANNING

E. & O.E., *ed.*

* Planning: an annual notebook. 1939. (With an addl. secn. on Farm buildings, by Edwin Gunn.)

Lond.: A. & B.N. 1939. 7s. 6d. R. & P.

BUILDING TYPES

(CIVIL)

S.R. 725.52

CONOLLY (JOHN)

The Construction and government of lunatic asylums and hospitals for the insane.

80. Lond. 1847. (2s.) P.

× MS

725.52.094

WOOD (L. C.)

The Planning of mental hospitals. (Thesis for Final Examination, July.)

typescript, *Ink D.*, and *Ph.* 13". [1939.]
Presented by the Author.

S.R. 725.6

ADSHEAD (JOSEPH)

Prisons and prisoners.

1a. 80. Lond. 1845. (3s. 6d.) P.

- JEBB ([J.]), *Surveyor-General of Prisons*
Report on the discipline and construction of Portland Prison, &c.
(Third report of the Surveyor-General, *back series title*.)
la. 8o. Lond. 1850. (3s. 6d.) P.
× MS.
725.716
- WEED (C. H.)
The Design and equipment of licenced [licensed] premises.
(Thesis for Final Examination, July.)
typescript, *Penc. D. (col.)*, and *Repr. of D.* 12 $\frac{3}{4}$ ". 1939.
Presented by the Author.
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725.823-45
- YARROW (A. R.)
The Design and construction of modern film studios. (Thesis
for Final Examination, July.)
typescript, *Ink D.*, *Repr. of D.*, and *Ph.* 13 $\frac{1}{2}$ ". [1939-]
Presented by the Author.
o64 (44 P)
- EXPOSITION INTERNATIONALE, Paris, 1937 (ARTS ET TECHNIQUES,
etc.)
Le Guide officiel.
8 $\frac{1}{2}$ ". Paris. 1937.
Presented through the Exhibition Sub-Committee.
725.95 : 624.2] 693.55
- TAYLOR (F. W.), THOMPSON (S. E.), and SMULSKI (EDWARD)
Reinforced-concrete bridges.
9". xi + 456 pp.
New York : John Wiley ; Lond. : Chapman & Hall.
1939. (£1 12s. 6d.) P.
(RELIGIOUS)
× MS.
726.5 (498) : 729.49
- SANDON (E. C. R.)
The Painted churches of the Bucovin [Rumania]. A study *etc.*
(Thesis for Final Examination, July.)
typescript, *Ink, Penc. and Col. D.* and *Ph.* 12 $\frac{3}{4}$ ". [1939-]
Presented by the Author.
726.5 : 284/289 (492)
- OZINGA (M. D.)
De Protestantische kerkenbouw in Nederland, *etc.*
10 $\frac{1}{2}$ ". xii+184 pp.+front.+65 pls. (backed).
Amsterdam : H. J. Paris. 1929. (18s. 6d.) P.
S.R. 726.6 (42 B)
- LEVERSAGE (PETER)
A History of Bristol Cathedral, &c.
la. 8o. Clifton, Bristol. 1853. (1s.) R.
726.71 (42.27 N)
- OFFICE OF WORKS : [DEPT. OF] ANCIENT MONUMENTS AND
HISTORIC BUILDINGS
Official guides :
Netley Abbey, Hants. By A. Hamilton Thompson.
pam. 8 $\frac{1}{2}$ ". Lond. : H.M.S.O. 1937. 6d. *Presented.*
726.71 (42.43 T)
- BRASPEAR (Sir HAROLD)
Tintern Abbey, Monmouthshire.
2nd ed. pam. 7 $\frac{1}{2}$ ". [Lond. :] H.M.S.O. 1929. 6d.
Presented by Mr. Eric L. Bird [A.].
- MARKLAND (J. H.)
Remarks on English churches, and on the expediency of rendering
sepulchral memorials subservient to pious and Christian uses.
[Damage to fabrics by monuments.]
8o. Oxford, &c. 1842. (1s.) P.
S.R. 726.825 : 726.5
- DURM (JOSEF), later SCHMITT (EDWARD), *editor*
Handbuch der architektur.
Teil iv, halbband 8, heft 3b : Die Feuerbestattung. [Crema-
tion.] By Fritz Schumacher.
10 $\frac{1}{2}$ ". Leipzig : Gebhardt. 1939.
Presented by Dr. Schumacher, the Author [Hon. Corr. Mem.].
(EDUCATIONAL)
727.4 : 62 (899 M)
- FACULTAD DE INGENIERIA, Montevideo (URUGUAY, *government*)
Facultad de Ingenieria. Su edificio en construccion. Julio
Vilamajó, arquitecto *etc.*
pfo. 14 $\frac{1}{2}$ ". (xvi) pp.+xvi pls. Montevideo. 1939.
*Presented by the Faculty, through H.M. Minister at Montevideo and
the British Council for Cultural Relations with Other Countries.*
× MS.
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- CHRISTIE (R. J. B.)
Zoo design and equipment. (Thesis for Final Examination,
July.)
typescript, *Repr. of D.*, and *Ph.* 13". 1939.
Presented by the Author.
- VICTORIA AND ALBERT MUSEUM
Review of the principal acquisitions during the year 1938.
1939. 2s. 6d. R.
(DOMESTIC)
- PERRY (C. A.)
Housing for the machine age.
9". (i)+261 pp.+pls. New York : Russell Sage Foundation.
1939. (\$2.50.) R.
728.1 : 728.68 (o64)
- MINISTRY OF HEALTH
Exhibition cottage for agricultural workers.
pam. 9 $\frac{3}{4}$ ". [Lond. 1939.] R.
E.W. 728.54 : 727 : 34 (42.1)
- DUGDALE (WILLIAM)
Origenes juridiciales. [Extracts.]
The History and antiquities of the four Inns of Court : . . . and
. . . Inns of Chancery : . . . comprized in the . . . work. . . . by
Sir W— D—, and published . . . 1666, 1671, and 1680, . . .
Origenes juridiciales, &c. [With pref. and appendix. By John
Rayner.]
8o. London. 1780. (2s. 6d.) P.
Title-page mutilated.
728.71
- HASTINGS (ALAN), *ed.*
* Week-end houses, cottages and bungalows.
11". 112 pp. Lond. : Archl. Press. 1939. 7s. 6d. P. (2).
728.81 (41.1/42.8)
- HUGILL (ROBERT)
Borderland castles and peles.
7 $\frac{1}{2}$ ". xii + 241 pp. + front. + 22 pls.
Lond. : Burrow. [1939.] 6s. 6d. P

- PLAW (JOHN)** E.W. 728.86
Sketches for country houses, villas, and rural dwellings; &c.
40. London. 1800.
Another copy. Bound after Ferme ornée, 1795.
E.W. 728.9 : 725.76
Ferme ornée; or rural improvements. A series of . . . designs,
suited to parks, &c.
40. London. 1795.
New ed., 1800, already in Library.
Presented by Mr. E. F. Bays through Mr. S. Rowland Pierce [F.].
728.933.1
- KITCHEN PLANNING CENTRE**
Studies in kitchen planning :
*The Size of kitchens.
*Some notes and observations.
each 10 $\frac{1}{4}$ ". Lond. [1936 or —37.] R. To Loan Library.
728.943
- SALOPIAN CATTLE BOWL Co.**
*S— cow house equipment etc., cover title. [Catalogue.] (With
Price list No. 39, 1939, inserted.)
9 $\frac{1}{4}$ ". Prees, Whitchurch, Salop. [193—] R. (3).
DETAILS, CRAFTS, FITTINGS 729.386.986
- CITY GARDENS CLUB, New York**
Window boxes for the City. By H. K. Morse.
pam. 8". New York. [1939.] R.
729.662
- CRACE (J. G.)**
"The Crace papers." Two lectures on the history of paper-
hangings . . . to the R— I— of B— A— . . . 1839. With
foreword and comments by A. V. Sugden and E. A. Entwisle.
9 $\frac{1}{4}$ ". 55 pp. n.p. 1939.
Presented by the editors, of the Wall Paper Manufacturers Ltd.,
Manchester.
729.8.036.6 (494)
- HESS (ROBERT)**
Neue glasmalerei in der Schweiz. (Societas Sancti Lucac.)
9 $\frac{1}{4}$ ". xvi + 79 pp. + 44 pls.
Basel : Hess. [1939.] (7s. 6d.) P.
729.9 : 691.71 72.036.6
- CLOUZOT (HENRI)**
Ferrermerie moderne.
Nouvelle [? 5th] série.
pfo. 17 $\frac{1}{4}$ ". Paris : Moreau. [193—] (13s. 6d.) P.
Last vol. in Library : 4th série, [1931].
× MS.
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- SMITH (W. V.)**
Welsh church screens and roodlofts. (Thesis for Final Examina-
tion, July.)
typescript, Penc. and Col. D., Ph., and Repr. 10". [1939.]
Presented by the Author.
- ALLIED ARTS AND ARCHEOLOGY** 7.02
- CARRINGTON (NOEL)**
*The Shape of things. An introduction to design in everyday
life.
7 $\frac{1}{4}$ ". xv + 209 pp. Lond. : Nicholson & Watson. 1939.
6s. R. & P.
7.03 (46 V) (06) (058)
- VALENCIA : REAL ACADEMIA DE BELLAS ARTES DE SAN CARLOS**
Archivo de arte Valenciano, annual.
Año viii. 11". Valencia. 1922. Presented.
- LE CORBUSIER, pseud.** 7.036.6.01 + 711.4.01
*Le Lyrisme des temps nouveaux et l'urbanisme. (Le Point,
journal, numéro spécial, xx.)
10". 40 pp. Colmar. [1939.] (3s. 6d.) R. & P.
749 : 684
- SMITH (GEORGE)**
The Cabinet-maker and upholsterer's guide : &c.
40. Lond. 1826. (£5.) P.
E.W. 75.023.22 : 741.023.224
- GAUTIER (H.)**
L'Art de laver, ou nouvelle maniere de peindre sur le papier, &c.
12mo. Lyon. 1687. (8s. 6d.) P.
902.6 : 7.032.7 (42.58 V)
- WHEELER (R. E. M. and Mrs. R. E. M.)**
Summary of the Verulamium excavations, 1932. (From St. Albans
and Hertfordshire Archæol. and Archæol. Socy.'s Trans., 1932.)
pam. 9 $\frac{1}{4}$ ". n.p. [1933.]
Presented by Mr. Eric L. Bird [A.].
- BUILDING SCIENCE** S.R. 69
- [NICHOLSON (PETER)]**
The New and improved practical builder, and workman's com-
panion : &c.
[New ed. of The New practical builder &c., 1823.]
3 vols. in 2 (1 & 2 in 1). 40. Lond. 1838. (7s. 6d.) P.
The 1823 work already in Library.
69 + 728 : 693
- GUNN (EDWIN)**
*Modern building technique. Domestic and similar structures.
9 $\frac{1}{4}$ ". 184 pp. Lond. : Archt. & Bg. News. 1939. 6s.
R. & P. (2)
69 [72.08 : 34 (42.1)]
- SAMUELY (F. J.) and HAMANN (C. W.)**
*Building design and construction with reference to the new
L.C.C. regulations.
Vol. i.
10". Lond. : Chapman & Hall. 1939. £1 5s. R. & P. (2).
- STRUCTURAL ELEMENTS** Inf. file
69.025.3 : 725.4
- FITZMAURICE (R.) and LEA (F. M.)**
*Floors for industrial purposes. (From Instrn. of Chemical
Engineers, Trans., vol. 17.)
pam. 11". [Lond.] 1939. R. (2).
S.R. 69.026 : 694.8
- NICHOLSON (PETER)**
A Treatise on the construction of staircases and hand-rails, &c.
2nd ed. 40. Lond. 1835. (5s.) P.
- MATERIALS** E.W. 691.11 : 620.193.83
- WADE (THOMAS)**
A Treatise on the dry rot in timber.
1a. 80. Lond. 1815. (2s.) P.
- DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH :
BUILDING RESEARCH**
Technical papers : 691.54 : 532.77
No. 26. The solubility of cements. F. M. Lea.
1939. 6d. R.
(To be continued)

Review of Periodicals

Attempt is made in this review to refer to the more important articles in all the journals received by the Library. None of the journals mentioned are in the Loan Library, but the Librarian will be pleased to give information about price and where each journal can be obtained. Members can have photostat copies of particular articles made at their own cost on application to the Librarian.

Normally the journals referred to in this review, all of which are in the R.I.B.A. reference library, cannot be borrowed. Members are, however, asked to encourage their local public libraries and their local society's library to take as many journals as they can afford; and they are asked, for the convenience of local members, to notify the R.I.B.A. of what journals are known to exist in public or private hands in their own neighbourhood.

SCHOOLS

ARCHITECT AND BUILDING NEWS. 1939. 28 July. P. 112. Large boys' and girls' secondary school at Helsingfors by V. Vähäkallio.

DE 8 EN OPBOUW (AMSTERDAM). 1939. No. 14. P. 139. Good nursery school in Rotterdam by J. C. Boks.

MUSEUMS AND EXHIBITIONS

ARCHITECTURAL FORUM (NEW YORK). 1939. July. Winning designs in the competition for the Smithsonian Gallery of Art, Washington. First prize: Eliel and Eero Saarinen, in association with J. R. F. Swanson.

DAS WERK (ZÜRICH). 1939. No. 7. Number devoted to the excellent landscape and gardens of the Swiss National Exhibition, Zürich, 1939.

FORM (STOCKHOLM). 1939. No. 6. Special number on the New York World's Fair with photographs of the well-detailed Swiss Pavilion.

BOUWKUNDIG WEEKBLAD ARCHITECTURA (AMSTERDAM). 1939. 24 June. P. 257.

Article and photographs of Liège Exhibition. Details of light steel structure of the Dutch pavilion.

BATIR (BRUSSELS). 1939. March. Number on the International Exhibition at Liège.

CASABELLA (MILAN). 1939. No. 137. P. 6. Simple and well-designed stands for the display of books, photographs, etc., in a travelling exhibition.

CASABELLA (MILAN). 1939. No. 137. P. 13. Good exhibition construction at Milan, by Bianchetti and Pea, in the form of an unclothed frame structure.

CASABELLA (MILAN). 1939. No. 137. P. 22. Exhibition of pharmaceutical chemistry. Typical high standard of display.

ARQUITECTOS (LISBON). 1939. No. 9. Special number on Portuguese Exhibition buildings, including New York World's Fair, 1939, and a project for a Portuguese Historical Exhibition, 1940.

TÉR ÉS FORMA (BUDAPEST). 1939. No. 6. P. 99. Photographs and plan of the Budapest Horticultural Exhibition by Karl Weichinger.

CIVIC

ARCHITECT AND BUILDING NEWS. 1939. 21 July. P. 73. Bolton Civic Centre, by Bradshaw, Gass & Hope [FF.], extending the existing Town Hall, and adding municipal offices, civic rooms, police buildings, library, art galleries, museum, children's detention home and public health clinics.

ARCHITECTURE ILLUSTRATED. 1939. July. P. 3. Southampton Civic Centre, by E. Berry Webber [A.].

HOTELS AND RESTAURANTS

ARCHITECTURE ILLUSTRATED. 1939. July. P. 17. "The Bull," licensed premises at Sheen, Surrey, by A. W. Blomfield [F.].

OFFICES

ARCHITECTS' JOURNAL. 1939. 20 July. P. 106. Plans and model of headquarters for the Essex Rivers Catchment Board; rating and accounts departments, engineer's department, clerk's offices, boardroom. By R. Gardner-Medwin and E. R. Collister [AA.].

L'ARCHITECTURE D'AUJOURD'HUI (PARIS). 1939. June. Number on factories and office buildings. Illustrations include the building for the Paris electricity distribution company by V. Cassan, the Montecatini Company building at Milan by Gio Ponti, the Hoffmann La Roche administration buildings at Bale by O. Salvisberg, the St. Homobonus Co-operative building for retail textile business by G. H. Holt, the bank of the Belgian Société Générale at Liège by G. Dedoyard, the skyscraper bank and office building in Philadelphia by Howe and Lescaze, and a large number of factories from many countries. Good technical information is given in many cases, and there is a well-illustrated section on office furniture. The factories section includes articles on noise and vibration in factories, and on the lighting of industrial premises.

ARKKITEHTI (HELSINGFORS). 1939. No. 4. P. 58. Warehouse and office building in Turku, by L. Sipila.

SHOPS

ARCHITECTURE ILLUSTRATED. 1939. July. P. 22. Photographs of shop front to John Lewis' new premises, Cavendish Square, by Slater, Moberly and Uren [FF.], William Crabtree [A.] and Rene Coulon.

ARCHITEKTURA (PRAGUE). 1939. No. 6. P. 133. A large store in Prague by J. Kittrich and J. Hruby, with good details and photographs.

TRANSPORT

ARCHITECTS' JOURNAL. 1939. 3 August. P. 182. Motor service station and showrooms, offices and carpark at Liverpool, by R. Nickson [A.] and A. Martinez.

ARCHITECTURAL RECORD (NEW YORK). 1939. July. P. 30.

Railway terminus at San Francisco, with garage for 600 cars, by T. L. Pflueger, A. Brown and J. J. Donovan.

ARKKITEHTI (HELSINGFORS). 1939. No. 4. P. 56. Omnibus station at Turku, comprising waiting room, goods offices, booking offices, restaurant, etc.

WELFARE AND COMMUNITY BUILDINGS

ARCHITECT AND BUILDING NEWS. 1939. 21 July. P. 80. St. Peter's Church Rooms, Swinton, by R. S. Nicksen [A.] and Charles Hutton.

FOCUS. 1939. No. 4. P. 25. Scheme for a community centre by E. Maxwell Fry [A.].

HOSPITALS, CLINICS, ETC.

ARCHITECTS' JOURNAL. 1939. 20 July. P. 101.
Luton and Dunstable hospital by Parrott and Dunham [A.], comprising general block for 132 beds, wing for paying patients, nurses' home, pathology block, etc.

ARCHITECTS' JOURNAL. 1939. 3 August. P. 168.
Hospital at Chichester, planned for considerable future extension, by C. G. Stillman [F.].

ARCHITECT AND BUILDING NEWS. 1939. 4 August. P. 138.
Nurses' Home at Warneford Mental Hospital, Oxford, by R. Fielding Dodd [F.].

ARCHITECTURAL DESIGN AND CONSTRUCTION. 1939. July. P. 249.

Section on hospitals, convalescent homes, sanatoria, nurses' homes. Amongst the buildings illustrated is the Wolverhampton and Midland Counties Eye Infirmary by Lavender and Twentyman [F./A.], St. Richard's Hospital, Chichester, by C. G. Stillman [F.]. An interesting French operating theatre with a patent system of steam asepsis is also illustrated.

HOSPITAL AND NURSING HOME MANAGEMENT. 1939. July. P. 197.

Nurses' Home, Macclesfield General Infirmary, by Frederick Gibberd [L.]. 58 bedrooms.

JOURNAL OF THE ROYAL VICTORIAN INSTITUTE OF ARCHITECTS (MELBOURNE). 1939. May. P. 74.

Maternal and infant welfare pathological building at the Women's Hospital, Melbourne, by Stephenson and Turner.

NOSOKOMEION (STUTTGART). 1939. No. 4.

Good editorial. Principal contents in English are "World-wide advances in hospital construction," by Charles E. Elcock [F.]; characteristic features of hospital construction in the tropics, by C. A. Surraco; the influence of climatic conditions on hospital construction, by Stephenson and Turner; comments on hospital construction, by E. F. Stevens; "What rational care of the people's health demands of the hospitals," by I. H. Pearse; a survey of church hospitals, by Newton E. Davis; article on social health work before, during and after hospital care, by Dr. V. Tolar and Dr. A. Ripkova; and notes on the organisation and management of the hospital dietary department by Kate Daum.

EMULATION (BRUSSELS). 1939. No. 4. P. 54.
Large hospital and medical institute at Brussels (L'Institut J. Bordet), by G. Brunfaut and S. Jasinski. Also an article on hospitals by G. Brunfaut.

BOUWKUNDIG WEEKBLAD ARCHITECTURA (AMSTERDAM). 1939. 1 July. P. 265.

Diagnostic Hospital in Rotterdam by Brinkman and Van den Broek. Four floored reinforced concrete building on an urban site, comprising a first floor of 4 bed wards, second floor of double and single rooms with operating theatres above, and administration on the ground floor and mezzanine.

REVISTA DE ARQUITECTURA (BUENOS AIRES). 1939. No. 6. P. 270.

Good photographs and plans of the New Central Military Hospital in Buenos Aires. A ten-floor building by the Director of Engineering for the Ministry of War.

RECREATION BUILDINGS

ARCHITECTS' JOURNAL. 1939. 27 July. P. 133.
ARCHITECT AND BUILDING NEWS. 1939. 28 July. P. 97.

The New Casino, Blackpool, by Joseph Emberton [F.] and Halstead Best, containing bars, games room, restaurant, cafeteria, banqueting hall and roof gardens, and administrative offices.

THEATRES, CINEMAS, ETC.

ARCHITECT AND BUILDING NEWS. 1939. 14 July. P. 37.
The Philharmonic Hall, Liverpool, by H. J. Rowse [F.].

RELIGIOUS

ARCHITECTURAL RECORD (NEW YORK). 1939. July. P. 61.

Good and well-illustrated survey of Protestant Church design in America from 1812 to the present day, by Walter A. Taylor.

HOUSES

ARCHITECT AND BUILDING NEWS. 1939. 14 July. P. 52.
A small house near Tokyo, by T. Yoshida. A reinforced concrete structure, faced externally with white glazed brick.

NATIONAL BUILDER. 1939. July. Supplement. P. 3.
Illustrated notes on current developments in plywood for house construction in America.

ARCHITECTURAL RECORD (NEW YORK). 1939. July. P. 41.

House and treatment and consulting rooms for a doctor in St. Louis, by E. Mutrux.

ARCHITECTURAL RECORD (NEW YORK). 1939. July. P. 81.
Good section on structural requirements for houses; a survey of improved standards of performance, and the effect of these standards on the structural elements of houses—foundations, floors, walls, partitions, roofs. Data on recent developments in structural systems which make possible more economical and durable structures—wood, masonry, concrete and steel.

ARCHITECTURAL FORUM (NEW YORK). 1939. July. P. 3.
Good section on modern houses in America. Seventeen houses are illustrated, most of them for the first time, and all of them are accompanied by notes from either the owner or architect.

BYGGE KUNST (OSLO). 1939. No. 5.
Number on small timber houses in Norway.

FLATS

BYGGMÄSTAREN (STOCKHOLM). 1939. No. 21.
Special number on flats near Stockholm; at Traneberg, Hammarby, Abrahamsberg, Gärdet, Ostermalm, Norrmalm, Kungsholmen, Södermalm, Mälarhöjden, Ulvsunda, Inverness, Stocksund, Ekshagen, Danderyd, and at Götenberg, Kalmar, Borås, Norrköping, Karlskrona, Västerås and Uppsala.

CAMPS

R.I.B.A. JOURNAL. 1939. 17 July. P. 884.
Holiday camp at Prestatyn, North Wales, by W. H. Hamlyn [F.], architect to the L.M.S. Railway.

ARCHITECTS' JOURNAL. 1939. 13 July.
Special number on camps. Survey of children's camps, hostels, holiday camps in Sweden, Denmark, the U.S.S.R., Germany and Italy; National Park Camps in the U.S.A.; New Deal, agricultural, trade union, and tourist camps in the U.S.A.; and large holiday camps and school camps in Great Britain. Prestatyn Holiday Camp by W. H. Hamlyn [F.] is illustrated in full. There are also sections on planning and construction, and an analysis of the results of the Building Centre school and holiday camp competition.

ARCHITECT AND BUILDING NEWS. 1939. 4 August. P. 142.
Large holiday camp for 300 children at Cesenatico, Italy, by G. Vaccaro.

ELECTRICAL REVIEW. 1939. 4 August. P. 149.
Article on electric kitchen equipment in large English holiday camps.

MILITARY

ARCHITECT AND BUILDING NEWS. 1939. 4 August. P. 127.
Four drill halls for the Territorial Army, at Ewell, Clapham, Kingston and East Ham, by J. Hatchard-Smith & Son [F.].

BAUKUNST (BERLIN). 1939. No. 7. P. 221.
Large and pleasant barracks in Voralpenland, by G. Gsaenger.

AIRPORTS

ARCHITECT AND BUILDING NEWS. 1939. 30 June. 7 and 14 July. PP. 377, 16 and 49.

Airport design. Articles by Major R. Mealing and Christopher Nicholson [F.], dealing with general aspects of layout and zoning, different types of accommodation, and airport equipment, radio, beacons, etc.

A.R.P.

ARCHITECTURAL DESIGN AND CONSTRUCTION. 1939. July. P. 246.

A.R.P. scheme for Vauxhall Motors, Ltd., at Luton.

TEKNIKA XPONIKA (ATHENS). 1939. No. 179-180.
Special A.R.P. number. Translations in French of the principal articles.

BAUWELT (BERLIN). 1939. No. 19. P. 2.
Article on screening industrial lighting for A.R.P.

CONSTRUCTION

ARCHITECT AND BUILDING NEWS. 1939. 4 August. P. 140.
The first of a series of articles by T. Ritchie [A.] on the L.C.C. Timber Byelaws, which will provide an annotated set of the byelaws together with a set of fully worked examples arranged for easy reference.

EQUIPMENT: HEATING, VENTILATION, ETC.

JOURNAL OF THE INSTITUTION OF HEATING AND VENTILATING ENGINEERS. 1939. July. P. 221.

Paper on heat-transmission coefficients, by A. F. Dufton.

JOURNAL OF THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA (TORONTO). 1939. July. P. 165.

Article on condensation problems in modern buildings, by L. V. Teesdale.

ARCHITECTURAL RECORD (NEW YORK). 1939. June. P. 68.

Section on air-conditioning, dealing with control of air temperature and humidity, and control of air distribution.

ARCHITECTURAL RECORD (NEW YORK). 1939. July. P. 71.

Section on the effect of air sanitation on building design. Articles on the control of air-borne bacteria, dealing particularly with the use of ultra-violet light; on the control of air-borne dust and smoke; on the control of odours; on ionization and air-conditioning; and on types of air cleaners.

PENCIL POINTS (NEW YORK). 1939. July. PP. 458-9.
Data on minimum electrical equipment recommended for various rooms in domestic buildings, and on adequacy of domestic electric wiring.

LAW

ARCHITECT AND BUILDING NEWS. 1939. 14, 21 and 28 July, and 4 August. PP. 35, 71, 107 and 136.

Articles by Derek Walker-Smith, Barrister-at-Law, on the 1939 R.I.B.A. Standard Form of Building Contract.

HISTORICAL

TOWN PLANNING REVIEW. 1939. July. P. 155.

Article on Newcourt's plan for London after the Great Fire, by T. F. Reddaway.

COUNTRY LIFE. 1939. 10 June. P. 611.

Article on Roman towns of French North Africa, by Derek Patmore. Good photographs.

ARQUITECTURA Y DECORACION (MEXICO CITY). 1938. December. P. 291.

Well-illustrated article on primitive rural building in Mexico.

BIOGRAPHICAL

JOURNAL OF THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA (TORONTO). 1939. June. P. 147.

Note on Ramsay Traquair [F.], on his retirement from the Macdonald Chair in Architecture at McGill University. By Percy E. Nobbs.

PENCIL POINTS (NEW YORK). 1939. June. P. 357.

Article on Sven Markelius, by T. F. Hamlin, with good photographs of the Hälingborg Concert Hall, the Kollektivhus, Stockholm, the Stockholm Building Society, and the Swedish Pavilion at the New York World's Fair.

BAUWELT (BERLIN). 1939. No. 18. P. 401.

Note on Hans Poelzig, 1869-1936.

ARQUITECTURA Y DECORACION (MEXICO CITY). 1938. October.

Special number on Hannes Meyer, one of the teachers at the Dessau "Bauhaus." Contents includes a complete list of his work and writings and two addresses on Education and Town Planning. Also an article on Meyer's architectural course at the Dessau Bauhaus. Projects illustrated include the League of Nations Competition design and a school project. Buildings include the "A.D.G.B." Education centre at Bernau, near Berlin (1928-30) and a Co-operative Youth Hostel at Mümliswil in Swiss Jura (1938). The rest of the contents is devoted to Meyer's recent town planning work for the U.S.S.R.

TOWN AND COUNTRY PLANNING

TOWN PLANNING REVIEW. 1939. July. P. 174.

Article on the neighbourhood unit principle in town planning, by W. Russell Tylor.

TOWN PLANNING REVIEW. 1939. July. P. 187.

Article on Planting in connection with park planning, by R. H. Mattocks. Valuable lists of trees and shrubs for towns and smoky districts, for planting near the sea-coast, for limestone and chalky soil, and for growing under shade.

TOWN AND COUNTRY PLANNING. 1939. July-September. P. 111.

Report of the 1939 Cardiff Conference of the Garden Cities and Town Planning Association, notable for its strong demand for national planning under the executive authority of an organisation created by the Government.

JOURNAL OF THE TOWN PLANNING INSTITUTE. 1939. June. PP. 259 and 268.

Paper on planning in Leeds by J. E. Acfield, and on housing in Leeds by R. A. H. Livett [A.].

FOCUS. 1939. No. 4. P. 62.

A project for the replanning of Avonmouth docks, and the provision of new housing and social facilities, by R. D. Hammett, J. R. Penoyre, J. M. Wheeler.

NUESTRA ARQUITECTURA (BUENOS AIRES). 1939. No. 4. P. 116.

Planning project for a satellite town at Rebbio [Como], Italy, by Alberto Sartoris and Giuseppe Terragni. Details of layout and individual buildings.

Correspondence

SOURCES OF INFORMATION FOR ARCHITECTS

9 Gower Street,
W.C.1

To the Editor, JOURNAL R.I.B.A.

SIR,—This letter arises from a mixture of despair, hope and admiration, the admiration inspired by some of the splendid speeches made at a recent meeting at the Architectural Association—despair at recent happenings in our office and the hope that the R.I.B.A. and the National Federation of Building Trades Employers may get together to produce some research work which would be of great benefit to all concerned with building.

Our complaint is that, in spite of the existing large collection of information books, information sheets, information pamphlets and a constant stream of technical and semi-technical articles, it is very difficult indeed to find reliable information about the everyday problems which occur in practice.

To mention only three recent queries. We tried to discover the correct size for some water tanks. Precise data as to requirements was available, but reference to published information gave such widely different answers that it was decided to approach several firms—their answers varied by about 100 per cent.

A study of the heating problems in a certain job suggested the use of some form of radiant heat. Various forms were available—where were we to get reliable facts about each?

A particular problem in wood block flooring arose. The Building Research Station staff were unable to help, as they had not done any investigation on this point. Was any reliable data available, and, if so, where would it be found?

Many other similar little problems could be quoted. No doubt to most people the answers to some of these points would have been easy, but very few people would claim to know where to go for correct information in all cases. This is particularly the case where a young man is concerned.

We suggest that it is a fact that the younger people interested in the building industry are getting more and more interested in a scientific approach to their work, and we believe that what is required is just one more information book.

This new book should not attempt to give any direct information in detail, but should be a directory stating where information is to be found—in other words, an information book on information. We suggest that the compilation of such a book would be a valuable piece of work on which the R.I.B.A. and the N.F.B.T.E. might well co-operate. It would be a difficult task,

but would be worth while. It should, obviously, be kept quite out of the way of any possible bias from trade sources so that advertising in the book should be prohibited. It is difficult to say how it would fare financially, but if well done it would be a book no one could afford to be without.

It is not suggested that such a book is by any means all that is required, but it would be a useful beginning. It would go some way to co-ordinating present efforts, but if it could be followed by a realisation of the idea of a research professorship as put forward by one of the speakers at the A.A. meeting the business of architecture and building would benefit to an enormous extent.

(Signed) R. FURNEAUX JORDAN [F.]
CECIL C. HANDISYDE [A.]

A.R.P. PUBLICATIONS

57 Haymarket,
London, S.W.1
3.8.39

To the Editor, JOURNAL R.I.B.A.

SIR,—The compiler of the annotated list of publications on A.R.P. published in the JOURNAL on 22 May, answering in the JOURNAL on 26 June our letter which appeared in the JOURNAL on 12 June which was concerned with his remarks on our book *A.R.P.*, makes several surprising assumptions, which we hope are not also the official view of the A.R.P. Committee, and which we feel cannot be left unanswered.

1. The reviewer attempts to differentiate between practice—"the practical needs of members"—and theory.

This attitude of treating theory as an unnecessary luxury and of relying on a sort of stumbling rule of thumb practice, that has led to unheard of confusion and variation in standards of protection, is exactly what we criticise in our book and set out to replace. It is not as if there had been any existing theories underlying air raid precautions. The lack of theory is what prompted us thoroughly to investigate the subject and write the book.

2. The reviewer claims that we have made some unsound assumptions, but we are not prepared to admit this until it has been adequately proved to us. The example chosen by the reviewer is a particularly unfortunate one. He says that on page 40 of our book we state that "concentration of persons into one quarter of an area, instead of evenly distributing them over that area, will reduce their risk of being hit to one quarter." The suggestion made in our last letter that the reviewer had misunderstood or misinterpreted the book seems fully justified. What we really state on page 40 is that in the conditions mentioned above "the individual chances of being killed are identical."

This whole question has been dealt with by others better qualified to do so than ourselves (article in *Nature*, 29 October 1938, by J. B. S. Haldane, F.R.S., and Mr. Arup's book on *Design and Construction of Air Raid Shelters*). If your reviewer

can mathematically disprove the facts as set out in the above publications he should do so at once and thereby make an important contribution to A.R.P. It is no use making an assumption *reductio ad absurdum* such as your reviewer instances, in which one bomb in a case of dispersal kills nobody and one bomb in a case of concentration kills everyone, because one can as well assume—*reductio ad absurdum*—an opposite set of circumstances resulting in equally devastating effects. One thousand people dispersed, one thousand bombs dropped—one per person, and everybody is killed. A thousand people concentrated, a thousand bombs dropped as before, but just to spite the reviewer, the thousand people emerge unscathed! Loose thinking on this subject by the reviewer and by many others connected with A.R.P. has led to his making what he is pleased to call an unsound basic assumption.

3. Your reviewer further persists in his theory that our book is purely a justification of the Finsbury scheme, and seeks to prove only the disadvantages of other shelters. We would like to point out once again that before any final scheme was adopted for Finsbury we researched into innumerable types of shelters in order to arrive at the most economical and efficient solution of the problem of protection in a crowded area, such as Finsbury. Particulars of sizes, construction, persons per acre, costs per head and danger coefficients are given in our book for sixty different shelters. As a result of this research the deep circular shelter was chosen as the only possible means of providing economically the required degree of protection in Finsbury, but we pointed out, nevertheless, that each of the other types would be suitable under various different conditions.

It is natural that we should have given more detail in our book to the finally selected scheme, particularly in view of the interest attached to the first complete shelter scheme formulated for any district and submitted to the Home Office.

Your reviewer further completely misrepresents the text on page 72 of our book. His interpretation of what is written

suggests that we regard other shelters besides those adopted for Finsbury as "ill-considered and obviously impractical proposals," whereas the point which we stated quite simply and clearly was the danger of public opinion tiring of the whole problem, due to the spate of ill-considered and impractical proposals which have been made, such as huge steel globes which would stand in the street and roll away when hit—an actual suggestion recently put forward.

We would welcome criticisms of our book, but would suggest that before they are made critics should read what we have actually written.

With reference to your reviewer's final paragraph, insufficient time was allowed for comments on the draft annotated list, which consisted of a report on thirty-two different publications. It was sent out on 16 May stating that any comments must be in by noon on the 18th.

We are, Sir,

Yours faithfully,

For and on behalf of Tecton,

L. DRAKE [A.]

DURHAM KEEP

6 Eldon Square,
Newcastle-on-Tyne 1

28.6.39

To the Editor, JOURNAL R.I.B.A.

DEAR SIR,—I can only ask Mr. Toy to re-read Prior Laurence's description, keeping in mind that Laurence's *tumulus* was not the motte but the steep bankside leading up to it, and that *inside the arx* the ground "rises higher with three terraces." There is a good annotated translation in the Rev. J. R. Boyle's *Guide to the County of Durham*.

Yours faithfully,

HERBERT L. HONEYMAN [A.]

BUILDINGS FOR PUBLIC ELEMENTARY SCHOOLS

The following circular (Circular 1472) has been sent to local education authorities by the Board of Education.

It has recently been brought to the Board's notice by a deputation from an Association of Local Authorities that the Board's pamphlet entitled "Suggestions for the Planning of Buildings for Public Elementary Schools" is regarded by many authorities as constituting a statement of the Board's minimum requirements. It was represented that in consequence of this view being widely held, many authorities were being deterred from proceeding with the provision of the buildings required for the purposes of reorganisation and the raising of the school-leaving age, on account of the expenditure involved in a strict adherence to the schedules of accommodation given in the pamphlet.

While the suggestions in the Board's pamphlet were framed with a view to the avoidance of unnecessary expenditure, it cannot be too strongly emphasised that they do not represent irreducible minima, but are suggestions and not regulations. It is therefore open to any authority to submit plans which

provide less complete accommodation than that set out in the pamphlet, and such plans will be sympathetically considered, provided always that the provision proposed is suitable and sufficient for the needs of the particular school.

The Board are themselves concerned at the high cost per place of many of the building proposals submitted to them, and they are anxious to co-operate with authorities with a view to reducing such cost where this can be effected without loss of efficiency. In this connection reference should be made to the Board's recent Circular No. 1468, dealing with light construction buildings.

In conclusion, the Board desire to make it clear that the purpose of this Circular is not to suggest a lowering of the present standard of school buildings, a standard which has done much not only to raise the level of educational efficiency, but also to create a new conception of education. They are, however, concerned to know that considerations of cost are leading some authorities to postpone necessary new buildings, and it is hoped that the present Circular may encourage such authorities to submit proposals.

Obituaries

PERCY SCOTT WORTHINGTON [F.]

1864-1939

More than eighty years ago Thomas Worthington began the practice of architecture in Manchester. Vigorous and competent, he won the confidence of his fellow citizens, designed hospitals in collaboration with Florence Nightingale, and was the father of eleven children. The eldest of them, Percy Scott Worthington, was born on 31 January 1864, and educated at Clifton and Corpus. He was a good runner, a cricketer and a scholar. After a period spent in a London office and in the Royal Academy Schools, he joined his father; and in 1895 was left in sole charge while the latter took a year's holiday abroad. Henceforward, until he was joined in partnership by his youngest half-brother Hubert in 1919, the work of Thomas Worthington & Son was done by the son—an anonymity somewhat characteristic.

A young man of fastidious judgment and sensitive artistic ideals would not have found an environment warmly sympathetic in the prosperous and confident Manchester of forty years ago. Culture there had for long been highly esteemed, but the Victorian emphasis was on learning and politics rather than on art. But he was not without his own reserves. He came there from the generous rivalry of the schools, and fresh from a sketching tour which had taken him through the Balkans to Constantinople, and Athens; and had furnished just that vivid visual background which his mind, nourished on the writings, history and philosophy of these regions, was at the moment most ready to receive and remember. For in itself a classical education, in his day certainly, would have had little to say about the art of the old world, the flowering of the humanist spirit in buildings and planning and sculpture. Indeed, the most vigorously architectural period of all—the Hellenistic—would be likely to be passed by unnoticed by teachers of the classics. But so sensitive a mind will have made its own interpretation of what it was taught, and above all have caught from the past, from poet and orator, from historian and thinker, that sense of the continual striving of men for a goal higher than meat and drink, which would stiffen him to keep alive an ideal in matters to which all but a handful of those around him were at the time indifferent.

No work of architecture is purely personal. The initial inspiration, the happy idea, needs patient labour and the help of other hands for its working out, and the co-operation of client, and builder, specialist and craftsman during many months. In such, the everyday activity of the architect, Percy Worthington showed eminent qualities of leadership, a critical judgment sometimes perhaps over-acute, and at all times an

obstinacy not to be satisfied by anything less than the best, as he saw it. And he combined with this foundation of character mental powers which were equal to the solution of complicated problems of planning and arrangement. As early as 1898 he won a competition for the Halifax Infirmary, and gradually came to be recognised as an architect of outstanding ability in the difficult field of hospital design. Unhurried, self-critical, he was not obviously a competition-winner. Yet no less than eight of his larger works were so won. In schools and student tests of to-day quickness of solution is encouraged and developed. But this, though useful to the architect himself, has no value for architecture. Some decide abruptly, some meditatively. It is the result that matters, not the rate of decision. Worthington was of the meditative type, not easily satisfied. There is a work of his, the reconstruction of Kerfield House, where an anxious plan and a troubled exterior has grown into a serene and spacious unity, which may be read as a sort of parable of his whole career.

It is both unjust and impossible to sum up in a few lines fifty years of works. Each was a slowly pondered problem. And we must be ignorant of the conditions, the reasons for this and that. Any judgment from a plan and a photograph must be in the highest degree superficial. Each building, thus hastily glanced at, has been moulded by long pondering, by trial and error, by needs we know nothing of; and distinguished by subtlety of plan or detail which only a personal and guided visit would gradually reveal. Here are a hundred or more works, the outcome it may be of twenty thousand drawings. No one who is in any way aware of the background to it all could venture, without long study, in judgment upon it.

On broad lines, his work follows the general development of his epoch. First there is an emphasis upon materials and craftsmanship, as in Woodgarth, following the lead earlier given by William Morris. Here, as always, Worthington's planning skill and sense of site is markedly personal. Gradually, as with his contemporaries, there is a broadening. Stevenson, as it were, gives place to Gibbon. The ban laid by Ruskin's teaching upon the balance and formality and design-units of the Renaissance, gradually weakens. At Radbroke Hall, at the Faculty of Arts, and in the Insurance Building in Albert Square, there is in the exterior pattern, and within as well, a glad and confident use of the columns and entablatures developed by seventy-five generations of our forefathers. And this in turn is gradually superseded, as at Ashburne Hall, the Manchester Grammar School, and Nurses' Home of

the Royal Infirmary, by a conspicuously massive expression, strongly standing brick walls crowned by great cornices, or abruptly emphasised by the stern lines of parapets bounding a flat roof.

But all this is no more than a "schema" for a skeleton outline on which to base a study of his development. And for this we should need, for each successive work, plans and sections and outward expression all together, and a knowledge of the programme and the limiting conditions.

Parallel with this development of outward expression, here lightly sketched, Worthington was all the time pertinaciously tackling the ever-developing problem of hospital planning and equipment. Nearly forty schemes are the outcome of forty years. And one of the latest, the paying patients' block of the Royal Infirmary, seems to combine a resilient and confident mastery in the plan with that simplicity of outward expression which is only the first of hard and unremitting thought. In hospital planning he was one of the pioneers. And it is the common fate of the pioneer to show the way for others whose advances in due time make his own solutions out of date.

So much experience, so much skill, so much of the person put year by year into works, so much of the finished works enriching the personality—how wasteful sometimes the whole scheme appears. A writer, with his personal appeal, will live, it may be, even more vividly after he is gone. With an architect there is a less direct touch. For his completed work is needed the loyal help of many hands—in office and workshop, on the site, and among the craftsmen. From tradition and training, as well as from his own natural bent, Worthington was a master of detail, whether the matter concerned an operating theatre, Masonic ceremonial, or fine joinery, stone and wood carving, and wrought metal. His alert discrimination will be missed by Brown of Wilmslow, H. M. Miller and Edmund Hart. But to those who knew him there will still be something of him about those buildings into which he put so much of himself—in the columned halls of the Masonic building, or the Faculty of Arts, in the great archway of the Grammar School, in many a hospital ward, and in the uncatalogued small graces with which he enriched house and church. "Every one of these achievements," as the Dean of Manchester put it in his valedictory sermon, "wonderfully met particular needs—needs which he had experienced in his inmost soul before he related them to a building plan."

Though not by choice a public man, he gave much of his little leisure to public work in Manchester, as chairman of the Civic Advisory Committee, as president of the Royal Manchester Institute and the Manchester Society of Architects, as a member of the Diocesan Advisory Committee, and the City Art Gallery Committee, and as a governor of the Whitworth Gallery. For many years he had watched over Chetham Hospital, saved it from the death-watch beetle and enriched its cloisters with a war memorial; and in relation to it had designed a scheme of civic improvements which was very near his heart. Its execution by the city authorities would form a fitting memorial of his life's work in Manchester.

In the later years of a career which had been, under his father's name, almost anonymous, he was honoured by a Doctor's degree, by the Royal Gold Medal, and by a knighthood. It is his great achievement to have nursed, with quiet obstinacy and faith, the spark through all the indifferent years, and to have won by his own honours an honourable place, where hitherto other ideals had monopolised attention, for the

art in whose service he had happily and without remission spent his full powers.

W. G. NEWTON [F.]

Sir Percy Worthington died on Saturday, 15 July; the R.I.B.A. was represented at his funeral by Mr. C. G. Agate, President of the Manchester Society of Architects.

SOME OF THE WORKS OF SIR PERCY WORTHINGTON

DOMESTIC

- 1901 Little Mosses, Alderley Edge, Cheshire.
- 1901 The Moss, Alderley Edge, Cheshire.
- 1903 Woodgarth, Knutsford, Cheshire.
- 1906 Farm House, Baguley.
- 1906 Additions, How Capel Court, Hereford.
- 1906 Ashley Green, Ambleside.
- 1906 Barrows Green, near Oxenholme.
- 1906 Vron Yw, near Denbigh.
- 1906 House at Chester.
- 1907 Additions, Colshaw Hall, Chelford, Cheshire.
- 1908 Additions, Mereleigh, Chelford, Cheshire.
- 1909 Additions, Oak Cottage, Styal, Cheshire.
- 1912 Stocktons, Alderley Edge, Cheshire.
- 1912 Kerfield House, Knutsford, Cheshire (remodelled).
- 1913 Cottages, Cranage.
- 1914 Withinlee, Prestbury, Cheshire.
- 1914 Gawsworth New Hall (remodelled).
- 1915 House at Liss, Hants.
- 1919 Radbroke Hall, Peover, Cheshire.
- 1921 & 1927 Cottage, garage and new wing, Ford Hall, Derbyshire.
- 1922 Lomberdale Hall, Derbyshire, new wing.
- 1923 Gatehouse, How Capel Court, Hereford.
- 1923 Abbey Wood, Delamere, Cheshire, new wing.
- 1924 & 1936 Winterslow, Boar's Hill, Oxford.
- 1924 South View, Cheadle, Cheshire, Library.
- 1926 Gorsey Brow, Mobberley, Cheshire (his own house).
- 1930 Blackthorn, Boar's Hill, Oxford.

MISCELLANEOUS

- 1899 Cricket Pavilion, Alderley Edge.
- 1902 Swimming Baths, Altrincham.
- 1905 Cemetery Gatehouse, Alderley Edge.
- 1907 Village Club, Cranage, Cheshire.
- BANKS, ETC.
- 1902 Lloyd's Bank, Broadheath, Cheshire.
- 1902 Lloyd's Bank, Sale, Cheshire.
- 1904 Union Bank, Alderley Edge, Cheshire.
- *1910 Union Bank, Piccadilly, Manchester.
- 1919 Insurance Office, Liverpool and London and Globe Insurance Company, Albert Square, Manchester.

WAR MEMORIALS

- 1921 Tarporley.
- 1921 Mobberley.
- 1921 Ullet Road, Liverpool.
- 1921 Alderley Edge.
- 1921 Leek.
- 1921 Chetham's Hospital.

CHURCH WORK

- 1897 Ullet Road Church, Cloister and Hall, Liverpool.
- 1904 Chapel, Cheadle Royal.
- Pulpits at Chelford (1903), Handforth (1909), Withington Presbyterian Church (1928), Alderley Edge, with choir stalls, screens, etc., lych gate (1908).
- 1915 Screen, etc., Christchurch, Stalybridge.
- 1916 Screens at Littleborough Parish Church.
- 1921 Baptistry, Sacristy, Chapel, etc., Tarporley Church.
- 1926 Restoration of roof, Astbury Church.
- 1934 Cathedral Refectory and Choir School, Sanctuary fittings, etc., Manchester Cathedral.
- 1937 Screens, etc., St. John's Church, Altrincham.

HOSPITALS

- *1898 Halifax Infirmary.
- *1899 Barton-on-Irwell Infirmary.
- *1903 Hull Royal Infirmary (additions).
- *1904, 1926 & 1938 Manchester and Salford Hospital for Skin Diseases.
- 1905 Booth Hall Infirmary.
- Ancoats Hospital :
 - Convalescent Home, Warford, 1903.
 - Nurses' Home, 1921 and 1934.
 - Laundry, boiler house and mortuary, etc., 1931.
 - New Ward Block, 1932.
 - Special Departments and Theatres, 1932.
- Ashton Infirmary :
 - Nurses' Home, 1924.
 - Outpatients' Department, 1929.
 - X-ray and Massage, 1936.
 - Domestic offices and dining-room, 1938.
- Cheadle Royal :
 - Lodges and cottages, 1905, 1911, 1925.
 - Convalescent Home, Colwyn Bay, 1909.
 - Nurses' Home, 1937.
- Municipal Maternity Hospital, Huddersfield, extension, 1939.
- Cottage Hospital, Knutsford (with Francis Jones), 1924 and 1930.
- Manchester Royal Eye Hospital :
 - New Outpatients' Department and Nurses' Home, 1937.
- Manchester Royal Infirmary :
 - Central Branch, 1912.
 - Pathological and Post-Mortem, 1930.
 - Nurses' Home, 1930.
 - Paying Patients' Block, 1937.
 - Orthopaedic and Electrical Department (with Dr. Faber), 1938.

- New Manchester Dental Hospital and School (under construction), 1939.
- Salford Royal Hospital :
 - New Theatres, etc., 1926.
- Stockport Infirmary :
 - Nurses' Home, 1912, 1921, 1926.
 - Outpatients' and Casualty, 1915.
 - Domestic offices and boiler house, 1920.
 - Massage, 1926.
 - New Ward Block, Theatres and X-ray, 1938.
- Wigan Royal Infirmary :
 - X-ray Department, 1920.
 - Theatre unit, 1924.
 - Nurses' Home extension, 1931.
 - Christopher Paying Patients' Home, 1938.

SCHOOLS

- 1904 Bedales Preparatory School, Hants.
- 1931 Manchester Grammar School (with Francis Jones).
- 1934 Choir School, Manchester Cathedral.
- 1939 Elementary School, Davyhulme, Manchester (with Francis Jones).

COLLEGIATE BUILDINGS

- 1906 Hulme Hall of Residence, Manchester University.
- *1909, 1924 & 1931 Ashburne Hall of Residence, Manchester University.
- 1915 Arlosh Hall, Manchester College, Oxford.
- *1919 Faculty of Arts Building, Manchester University.
- 1929 Public Health Laboratories, Manchester.
- 1931 New Physics Building, Manchester University.
- 1936 New Arts Library, Manchester University.
- 1937 Staff House, Manchester University.

- *1929 Masonic Temple, Manchester.

* Won in competition.

JOHN BRADSHAW GASS [F.]

In the death of John Bradshaw Gass, senior partner of the firm of Bradshaw Gass & Hope, the Institute has lost one of the oldest of its Fellows.

It will probably come to many as a surprise to realise that he had become an Associate of the Institute as long ago as 1881 and a Fellow in 1889, and that with his passing is snapped another link with the last century and the notable men who practised then.

The son of George Pool Gass, formerly of Annan, John Bradshaw Gass was born in Bolton in 1855, in Silverwell Street, where, on the opposite side of the same street, the offices of the firm with which he was associated have been situated for over 50 years. Educated privately in Bolton, and afterwards at the School of Art there, he later became a student at Owens College, Manchester, where he was awarded the Ashbury Exhibition in Civil Engineering. Thereafter he passed on to the Royal Academy Schools in London, and after a period of teaching art and mathematics at a private school, took up architecture as his life's work, becoming an articulated pupil to his uncle, the late J. J. Bradshaw [F.] in Bolton. Later, his experience was widened in London as an assistant to Sir Ernest George, R.A. Returning to Bolton in 1880, he entered a partnership with his uncle, thus founding the firm of Bradshaw and Gass, later to become Bradshaw Gass & Hope,

with which he was associated for so many years.

A man of wide interests, he had travelled much in Europe, North Africa and the United States of America, and throughout his life had maintained a connection with many cultural, social and educational movements in his native town.

With the Royal Institute of British Architects he had a long and valued association, which commenced with his becoming in 1880 one of the select few to whom were awarded the old Certificate of Proficiency. The possession of this certificate was a distinction of which he was greatly proud. It records that, having been duly recommended, he was examined in the Class of Proficiency and found by the examiners to deserve this certificate. It is of interest to note that the examiners, whose names appear upon it, were T. Hayter Lewis, James Thos. Knowles and F. C. Penrose; the certificate was also signed by John Whichcord, President of the Institute, Alfred Waterhouse, pro Vice-President, and William H. White, Secretary.

As already mentioned, Mr. Gass had become an Associate in 1881, and in 1889, he reached the Fellowship, in 1885 he had been awarded the Godwin Bursary. Later he became President of the Manchester Society of Architects, 1916-1918, and a Member of the Institute Council.

With the lengthy experience of all that pertained to his profession, John Bradshaw Gass combined a shrewd knowledge of men and affairs, coupled with a geniality, humour and kindness of outlook that made him a notable personality.

His long life was full of varied interests and activities, and he had enjoyed the living of it; he died as he would have wished with many of these interests largely unimpaired. To those of us who for many years were so closely associated with him, his passing brings a deep sense of personal loss, and leaves us with abiding memories of affectionate regard.

JAMES R. ADAMSON [F.]

Mr. Francis Jones writes as follows:—

When Mr. J. B. Gass was President of the Manchester Society of Architects in 1916-18 the writer was honorary secretary. Mr. Gass never did things by halves, and he threw all his energy and enthusiasm into the Presidency. Up to that time he had not been a great deal at the Society, but he made himself completely conversant with all its activities, and was never absent from its meetings. He was kindly to work with, and never failed to give credit to the Secretary for his work—credit which many presidents do not notice and take all the Secretary's work as a matter of course.

Mr. Gass had many sides to his character, and his great consideration for others was not the least of them.

Many members of the Institute will remember their visit to Bolton on the occasion of the Conference in Manchester. He arranged the programme with great care and thoroughness, and everybody was delighted with that excursion.

His industry, the breadth of his activities and his kindly nature will be difficult to replace.

J. C. ROGERS [A.]

We regret to record the death on 19 June of Mr. J. C. Rogers, whose interests during a large part of his professional career had been concentrated on furniture design and making and history. Mr. Rogers succeeded Mr. Charles Spooner as head of the Furniture Department of the London County Council Central School of Arts and Crafts, and he was the author of several excellent books on furniture: *English Furniture, its Essentials and Characteristics* (1923), *Modern English Furniture* (1930), and *Furniture and Furnishing* (1932) and was a contributor to McQuoid and Edwards' *Dictionary of Furniture*. He also wrote a pamphlet on the Tower of St. Alban's Abbey and another on the Manors and houses of Gorbambury. At the time of his death he was writing a *Dictionary of Architecture* for a London publisher.

Before he moved to live at St. Albans in 1924, Mr. Rogers was for several years a member of the Architect's Department of the L.C.C. engaged on housing work. At St. Albans he became one of the keenest students of the city's architecture and of all places and objects of historic interest in the city, particularly of Gorbambury, the residence of the Earl of Verulam and of the Cathedral, of which he was appointed surveyor.

In his private practice, in addition to modern domestic architecture, Mr. Rogers designed a new gymnasium and laboratory at St. Albans High School for Girls, and his specialist work included reparations to St. Albans Cathedral; the Gate House, St. Albans; St. Michael's Church, St. Albans, and to Luton Parish Church and other buildings in Hertfordshire and the surrounding districts.

At the time of his death he was architect to the new vestry

at St. Michael's Church, St. Albans, and also to the new Nurses' Home, at St. Albans Hospital. He had also prepared the plans for the proposed enlargement scheme in connection with the St. Albans Hospital.

Mr. Rogers was born in 1888. His architectural training was at the Royal Academy Schools and the Regent Street Polytechnic. He won the R.I.B.A. Arthur Cates Prize in 1914. He was a frequent contributor to the Book Review columns of the JOURNAL.

The profession has lost in Mr. Rogers a charming scholarly member; a man who was both an enthusiast and an expert as teacher, architect, designer and antiquary.

T. R. HAMPSHIRE [L.]

SENIOR STAFF MEMBER OF THE COLLEGE OF TECHNOLOGY,
BELFAST

The many thousands of students who in the past twenty years have passed through the Building Trades Department in the College of Technology, Belfast, will learn with regret of the death of Mr. Thomas Richard Hampshire [L.], who since January 1920 had been head of the department. He died at his residence, Burmah Street, Belfast, on Tuesday, 27 June, at the age of 59.

Mr. Hampshire was born in Huddersfield, Yorkshire, and was well known at the Huddersfield Technical College. Later he went to London, and was for many years on the staff of the Northern Polytechnic Institute as lecturer and teacher in building subjects. In 1920 he came to Belfast, where he quickly gained the confidence of the students and his colleagues, and his inborn gifts established a reputation as a brilliant teacher of a subject which has many ramifications. An authority on building subjects, and a strong advocate of traditional architecture embodying the use of good materials and the association of good craftsmanship, he was a great admirer of English cathedrals and of domestic architecture. He was for many years a Licentiate member of the Royal Institute of British Architects and a past Fellow of the Carpenters' Company.

A man of the kindest nature, his character was marked by profound sincerity, unaffected modesty, and a quality of earnestness which distinguished everything that he undertook. He had a great admiration for Northern Ireland and the people among whom he worked.

For some months past he had not been too well, but attended to his duties, having been at the College on the Friday before he died.

His death is a big loss to the College, and the deepest sympathy will be extended to his wife and daughter in their bereavement.

IVOR BEAUMONT

A. D. KELLOCK [A.]

We regret to record the death on 4 April of Mr. Andrew Duncan Kellock. He was born in 1889, and received his training in the Edinburgh College of Art, where he obtained the Diploma in Architecture. Mr. Kellock was never in private practice, but was a member of the staff of H.M. Office of Works, Edinburgh.

Notes

NORTHERN POLYTECHNIC EVENING SCHOOL OF ARCHITECTURE

Applications are invited for appointment as visiting teachers in the subjects of Building Regulations and Specifications and Materials in the Evening School of Architecture. Applications should, in the first instance, be made in writing, stating qualifications, professional experience and teaching experience, if any, and addressed to the Secretary, Northern Polytechnic, Holloway Road, London, N.7.

THE TWELFTH NATIONAL C.P.R.E. CONFERENCE

SOCIAL VALUES OF RURAL ENGLAND

The Twelfth National Conference for the Preservation of the Countryside will take place this year at Royal Tunbridge Wells, Kent, under the presidency of the Earl of Crawford and Balcarres, K.T., from 19 to 22 October.

In addition to the receptions and tours, the programme will include the following discussion meetings:—

Sir Ronald Davison will address the Conference on "Camps: Their Social Value to Rural England."

Mr. F. G. Thomas (in charge of the extra-mural work at the University College of the South-West) will address the Conference on "Rural Industry in Relation to the Agricultural Community."

An informal debate on "The Effect of Death Duties on Agricultural Land."

The Hon. Nigel Orde-Powlett (President of the Royal English Forestry Society) will address the Conference on "The Social Value of Afforestation and Existing Woodlands."

The Conference is not confined to members of the C.P.R.E. All who are anxious to attend should apply to the Secretary of the C.P.R.E., 4 Hobart Place, London, S.W.1.

THE OFFICERS' EMERGENCY RESERVE

The War Office announce that the Officers' Emergency Reserve has been reopened and that a limited number of further applicants with the necessary qualifications can now be accepted for certain categories.

The Officers' Emergency Reserve, now called the Army Officers' Emergency Reserve, was formed in 1937 to register the names of men possessing military experience or technical, scientific or academic qualifications who are prepared to give an honourable undertaking to present themselves for military service if called upon to do so. Owing to the large number of applications received, enrolment was closed temporarily in January of this year, but the bulk of the applications have now been disposed of and the lists are open once more. Application forms may be obtained from the Under-Secretary of State, The War Office (A.G.12), Melbourne House, Aldwych, W.C.2. Application forms may also be obtained from Command or Area Headquarters or from the secretaries of Territorial Army Associations.

MUSIC GROUP

The concert arranged in conjunction with the Schubert Society for Tuesday, 31 October, at 8.30 p.m., will be given by the New Hungarian Quartet: Zoltan Szekeley (first violin), Alexandre Moskowsky (second violin), Denis Koronzay (viola), Vilmos Palotai ('cello), assisted by John Moore ('cello). Full programme to be announced later. For tickets (price 2s. 6d.), apply to Mrs. H. V. Lanchester, 19 Bedford Square, W.C.1.

A.R.P.

The Department of Scientific and Industrial Research has published a volume of abstracts of English and foreign books and articles on air raid protection. Copies of this are in the R.I.B.A. Loan and Reference Libraries. The following is a brief classification of the items catalogued 1 to 456:—

THE WEAPONS OF AERIAL WARFARE AND THEIR EFFECTS

- 1-117
1. Construction and Effect of Various Types of Aerial Bombs.
- 2 to 6. Impact Effects and Constructional Requirements.
7. Effect of Bombs on Buildings in Shanghai.
8. Effect of Bombs on Buildings in Barcelona.
9. Effect of Bombs on Shelters in Spain.
- 10 to 30. Effects of Various Types of Bombing.
- 31 to 39. Effects of "Blast" in the Air.
- 40 to 59. Effects of "Blast" in the Earth.
- 60 to 65. Effects of Incendiary Bombs.
- 66 to 117. Gas Diffusion and Absorption.

AIR RAID PROTECTION IN GENERAL

- 118-178
- 118 to 153. Protective Structures in Relation to Buildings.
- 154 to 178. Protective Structures in Relation to Buildings and Other Services and Organisation of Duties *re* Same.

REGULATIONS AND OFFICIAL RECOMMENDATIONS

- 179-238
- 179 to 217. General Organisation of Protective Measures.
- 217 to 238. Technical Measures to Meet Various Conditions.

THE PROTECTION OF STRUCTURES AND THE DESIGN AND CONSTRUCTION OF AIR RAID SHELTERS

- 239-407
- 239 to 254. Technical Data *re* Effectiveness of Protective Measures.
- 255 to 263. Value of Reinforced Concrete, etc.
- 264 to 265. Value of Steel.
- 266 to 277. Protection for Timber and Other Materials.
- 278 to 355. Construction of Special Shelters.
- 356 to 407. Fittings, Filtration, etc., for Shelters.

TOWN PLANNING, CAMOUFLAGE, LIGHTING RESTRICTION AND OTHER MEASURES

- 408-440
- PROTECTION OF SPECIAL WORKS AND INSTALLATIONS
- 441-456

THE R.I.B.A. v. A.A. CRICKET MATCH

The weather producing a truly deplorable day, this match ended half an hour after it began. The R.I.B.A. won the toss, and B. S. Smyth and H. Perry opened the innings to the bowling of R. W. Holmes and A. J. Murray. Smyth was soon caught on the boundary by D. Watson for 9, and A. S. Knott joined Perry. With the score at 21 for 1—Perry, 6 not out; Knott, 4 not out—rain stopped play. As it was still raining at tea time it was decided to abandon the game.

The R.I.B.A. team were entertained to dinner in Bedford Square by the A.A.C.C. in the evening, the party being as cheerful and noisy as such functions usually are. Speeches were made and healths drunk, and generally the evening made up to some extent for the disappointment of the day. A tankard was presented to Roger Norton, the retiring captain of the A.A. club, and the opportunity was taken by the students of the A.A. School to make a presentation to Mr. J. H. Holmes, who is leaving the school staff after 15 years to take up the appointment as Principal of the Manchester Art School.

R.I.B.A. GOLFING SOCIETY

A match between the R.I.B.A. Golfing Society and the London Building Contractors' Golfing Society was held at West Hill Golf Club on 6 July, 26 a side.

The meeting was a great success, in spite of extremely wet weather, and it is hoped that it will become an annual event.

The building contractors were successful both in the morning and in the afternoon rounds, by 18 matches to 8 in the morning (singles, match play on handicap) and 6½ to 4½ in the afternoon (foursomes), total 24½ against 12½.

LONDON ORPHAN SCHOOL

The Architects' Benevolent Society would like to thank all those who kindly gave their votes for the London Orphan School to the orphan son of an architect.

The boy was successful in the election held recently, and will enter the school in September.

Notes from the Minutes of the Council

19 JUNE 1939

THE RETIRING PRESIDENT AND MEMBERS OF COUNCIL

The Hon. Secretary referred to the extremely valuable work which Mr. Goodhart-Rendel had done for the Institute and the profession during his term of office as President, and it was resolved by acclamation that a very cordial vote of thanks be passed in favour of the President.

The President thanked the Hon. Secretary and Council for their kind resolution and referred to the services of those members of the Council who were retiring at the close of the session. On the proposition of the President a cordial vote of thanks was passed in favour of the retiring members of Council.

PROPOSED FESTIVAL OF ARCHITECTURE, LIVERPOOL, AND BRITISH ARCHITECTS' CONFERENCE, 1940

It is proposed to hold a Festival of Architecture at Liverpool in the summer of 1940 on the occasion of the consecration of the tower and central portion of Liverpool Cathedral.

The R.I.B.A. have been asked to take part in the festival and to hold the British Architects' Conference at Liverpool at the same time.

The Council had previously accepted the invitation of the South-Eastern Society of Architects to hold the 1940 Conference in their area.

The South-Eastern Society of Architects, in view of the invitation from Liverpool, have generously agreed to forgo the privilege of having the 1940 Conference in their area and it has been agreed to hold it at Liverpool and to take part in the festival.

THE R.I.B.A. LONDON ARCHITECTURE BRONZE MEDAL 1938

The award of the Jury in favour of the Highways Depot of the City of Westminster, Gatliff Road, Westminster, designed by Mr. G. Grey Wornum [F.], was formally reported.

R.I.B.A. EXHIBITIONS

A report concerning recent activities of the Exhibition Subcommittee was submitted and it was resolved to convey the hearty thanks of the Council to the members of the Exhibition Subcommittee for the useful work which they are doing on behalf of the Institute.

THE COTMAN EXHIBITION

The cordial thanks of the Council have been conveyed to Mr. Paul Oppé for his valuable help in preparing the Cotman Exhibition.

ADVISORY PANELS: NOTES FOR THE GUIDANCE OF ARCHITECT-MEMBERS OF PANELS

A memorandum prepared by the Public Relations Committee was approved for publication in the JOURNAL and architectural press and for circulation to the Panels.

APPOINTMENTS

Faculty of Architecture of the University of Wales

Mr. Percy Thomas (Past-President).

R.I.B.A. Architecture Bronze Medal for New South Wales: R.I.B.A.

Representative on Jury:

Professor A. S. Hook [F.].

MEMBERSHIP

The following members were elected:—

As Fellows	26
As Associates	25
As Licentiates	5

Election 10 July 1939

Applications for membership were approved as follows:—

As Fellows	14 applications
As Associates	12 "
As Licentiates	17 "

Election 23 October 1939

Applications for membership from overseas candidates were approved as follows:—

As Fellows	2 applications
As Associates	4 "

Reinstatements

The following ex-members were reinstated:—

As Fellow:	Horace George Turner
As Associates:	Thomas Edward Senior Thwaite
As Licentiates:	Thomas Bilbow, Henry Ernest Flinn, Frank Henry Langley.

Resignations

The following resignations were accepted with regret:—Thomas Frank Hawkes [F.], Percy Aidan Lamb [F.], Eileen Eleanor Comber [A.], Frank Dyer [A.], Frank Bell [L.], Howard Thomas Grove [L.], George Alexander Craig [Ret. L.].

Transfer to the Retired Members' Class

The following members were transferred to the Retired Members' Class:—

As Retired Fellows:	Samuel Edwin Cook Ernest Grigg Heathcote Ernest Harry Major.
As Retired Licentiate:	Christopher James Ward.

Membership Lists

ELECTION: 10 JULY 1939

In accordance with the terms of Byelaws 10 and 11, the following candidates for membership were elected at the Council Meeting held on Monday, 10 July 1939.

AS FELLOWS (22)

- ATTLEE: THOMAS SIMONS, M.A.(Oxon.) [A. 1907], Truro.
 BATES: CYRIL FRANCIS [A. 1919], Newport, Mon.
 BRYAN: ARTHUR FRANCIS [A. 1910], Leicester.
 CARR: TERENCE [A. 1929].
 EBERLIN: ALBERT EDGAR, M.C. [A. 1921], Nottingham.
 JONES: WILLIAM HAROLD [A. 1920].
 And the following Licentiates who have passed the qualifying Examination:—
 BLUNT: HARRY ARTHUR, Birmingham.
 BULLIVANT: LINDSAY FRANK, Birmingham.
 FOX: HENRY LESLIE, Oswestry.
 HAINE: PERCIVAL WALTER.
 HICKSON: HARRY ARMITAGE, Doncaster.
 HUSON: WILLIAM, Wakefield.
 JONES: RICHARD WILLIAM HERBERT.
 WATERHOUSE: BENJAMIN, Manchester.
 YOUNG: GRAHAM CONACHER, Perth.
 And the following Licentiates who are qualified under Section IV, clause 4 (c) (ii) of the Supplemental Charter 1925:—
 BURDWOOD: STANLEY HARRY.
 COBB: THOMAS KEIGHTLEY, Northampton.
 COOPER: HERBERT FRANCIS THOMAS.
 PRITLOVE: SAMUEL BERTRAM.
 PUNTIN: JAMES HENRY, Regina, Saskatchewan.
 SCHOFIELD: RICHARD WILLIAM, Nottingham.
 SHAW: JAMES EDWARD, Newcastle-upon-Tyne.

AS ASSOCIATES (19)

- ANCHER: SYDNEY EDWARD [Passed a qualifying Examination approved by the Royal Australian Institute of Architects], Sydney.
 BARON: DONALD KENNETH, M.A., A.M.T.P.I., Dip.T.P. [Passed five years' course at the School of Architecture, Victoria University, Manchester. Exempted from Final Examination], Leeds.
 BLAKE-KELLY: JOHN ROBERT PATRICK, B.Arch. [Passed five years' course at the School of Architecture, University College, Auckland, New Zealand. Exempted from Final Examination], Auckland.
 FITZGERALD: EDWARD BELL [Passed a qualifying Examination approved by the Royal Australian Institute of Architects], Sydney.
 GOURLEY: ERIC MACAULAY EDNIE [Passed a qualifying Examination approved by the Institute of South African Architects], Johannesburg.
 GREENWOOD: SAVILE, B.Arch. [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], Leeds.
 HYDE: CHARLES HENRY [Passed five years' course at the Birmingham School of Architecture. Exempted from Final Examination], Birmingham.
 JONES: IVOR NORMAN, Dip.Arch.(Cardiff) [Passed five years' course at Welsh School of Architecture, The Technical College, Cardiff. Exempted from Final Examination], Cardiff.
 JONES: MISS MARJORIE CERIDWEN [Passed a qualifying Examination approved by the Institute of South African Architects], Pretoria.
 KLING: OSCAR, B.Arch.(Rand) [Passed a qualifying Examination approved by the Institute of South African Architects], Johannesburg.
 LAKE: HERBERT JOHN [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], Cardiff.

LINDSAY: WALTON HOLMES [Passed five years' joint course at the School of Architecture, King's College (University of Durham), Newcastle-upon-Tyne, and the Bartlett School of Architecture, University of London. Exempted from Final Examination], Wallasey.

LONGDIN: CHARLES EDWARD [Final].

MAYNARD: BRIAN CHARLES [Passed five years' course at the Bartlett School of Architecture, University of London. Exempted from Final Examination].

MYTTON: JOHN [Passed five years' course at the Birmingham School of Architecture. Exempted from Final Examination], Wolverhampton.

NICHOLLS: ERIC MILTON [Passed a qualifying Examination approved by the Royal Australian Institute of Architects], Sydney.

RHODES: GREVILLE STUART [Passed five years' course at the Architectural Association. Exempted from Final Examination].

SLATER: MISS KATHARINE PAMELA [Passed five years' course at the Architectural Association. Exempted from Final Examination].

WESTON: MISS ROSALEEN NANCY WILSON, Dip.Arch.(Leeds) [Passed five years' course at the Leeds School of Architecture. Exempted from Final Examination].

ELECTION: 23 OCTOBER 1939

In accordance with the terms of Byelaws 10 and 11, an election of candidates for membership will take place at the Council Meeting to be held on Monday, 23 October 1939. The names and addresses of the candidates, with the names of their proposers, found by the Council to be eligible and qualified in accordance with the Charter and Byelaws are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary R.I.B.A. not later than Thursday, 24 August 1939.

AS FELLOWS (19)

- BLAMPY: ROY CHARLES [A. 1920], 33 Halkett Place, Jersey, Channel Islands; 1 Balmoral Terrace, Trinity Road, St. Helier, Jersey. Proposed by C. W. Blanshard Bolton, Percival Bown and L. H. Bucknell.
 COHEN: JACOB [A. 1928], 100 Shoot-up Hill, N.W.2. Proposed by Morris de Metz, T. P. Bennett and Thomas E. Scott.
 COULDRICK: HORACE CHARLES CARRINGTON [A. 1930], 39 York Road, Hove, 2, Sussex; 39a York Road, Hove, 2. Proposed by Arthur George Porri, Thomas Wallis and Norman Keep.
 MONTAGU: ADRIAN ALBERT VAN [A. 1933], 37 Gordon Square, W.C.1. Proposed by Maxwell Ayrton, Professor A. E. Richardson and Frank W. Knight.
 ROSE: CHARLES HOLLAND [A. 1909], 20 The Broadway, Woking, Surrey; The Croft, St. Nicholas Hill, Leatherhead, Surrey. Proposed by Martin S. Briggs, H. R. Gardiner and N. D. Quick.
 SILK: GUY WHITEHALL [A. 1923], 11 Waterloo Place, Leamington Spa, Warwickshire; Clarendon House, Leamington. Proposed by F. W. H. Lee, Robert Atkinson and Hubert Clist.
 TOOTHILL: JOHN CEDRIC PENMAN [A. 1920], St. James' Chambers, 56 Church Street, Sheffield, 1; 2 Park Avenue, Sheffield, 10. Proposed by H. B. S. Gibbs, J. Mansell Jenkinson and J. Amory Teather.
 TWENTYMAN: ALFRED RICHARD, M.A. [A. 1931], Waterloo Chambers, Waterloo Road, Wolverhampton; Bilbrook Manor, Codsall, Staffs. Proposed by William T. Benslyn, Ernest C. Lavender and Norman Evill.
 WALKER: REGINALD BECKWITH [A. 1922], 3 St. George's Place, Brighton; 19 Cedars Gardens, Withdean, Brighton. Proposed by A. J. Thompson, A. J. McLean and Eric W. B. Scott.
 WALLIS: DOUGLAS THOMAS [A. 1927], 15 Elizabeth Street, S.W.1; 29, Roland Gardens, South Kensington, S.W. Proposed by Charles E. Elcock, Thomas Wallis and W. Fraser Granger.

WILLIAMSON: JOHN, P.A.S.I. [A. 1921], County Hall, Cardiff: "Maples," The Parade, Whitechurch, near Cardiff. Proposed by Percy Thomas, W. James Nash and W. S. Purchon.

WILSON: RALPH R., B.A. [A. 1910], Architects' Department, London County Council, County Hall, S.E.1; Tardebigge, Hayes Hill, Bromley, Kent. Proposed by E. G. Bax, W. E. Brooks and Frederick R. Hiorns.

WINBOURNE: GOODMAN GEORGE, P.A.S.I. [A. 1920], Bank Chambers, 214 Bishopsgate, E.C.2; 5 Copthorne Avenue, King's Avenue, S.W.12. Proposed by T. M. Wilson, John Swarbrick, H. Colbeck and Arthur H. Ley.

WOOD: KENNETH [A. 1896], 20 The Broadway, Woking; The Rise, Wych Hill Way, Woking. Proposed by N. D. Quick, Martin S. Briggs and H. R. Gardner.

And the following Licentiates who have passed the qualifying Examination:—

HONEY: ROBERT LLEWELLYN, F.S.I., The Town Hall, Chatham, Kent; Brighthelmstone, Maidstone Road, Chatham. Proposed by Charles W. W. Thompson, H. Anderson and John L. Redfern.

JOHNSTON: JAMES STEWART, 47 Charlotte Street, Leith, Scotland; 3 Lauderdale Street, Edinburgh. Proposed by T. Forbes MacLennan, J. R. McKay and Leslie Grahame-Thomson.

NICHOLS: DENNIS CUBITT, 37 Norfolk Street, Strand, W.C.2; 39 Wolseley Road, Crouch End, N.8. Proposed by Harold W. Currey and Sydney Tatchell and applying for nomination by the Council under the provisions of Byelaw 3 (d).

REYNOLDS: LEONARD ARTHUR, 3 Ladygate, Beverley, East Yorks; 282 Cottingham Road, Hull. Proposed by Llewellyn Kitchen, Frederick J. Horth and G. Dudley Harbron.

STEEL: WALTER REGINALD, 5 George Street West, Luton, Beds; Bradgerslei, Old Bedford Road, Luton. Proposed by Major Basil C. Deacon, F. H. Allen and Paul J. J. Panter.

AS ASSOCIATES (16)

ASHWORTH: JOHN ATKINSON [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], 4 Sandhey's Terrace, Waterloo, Liverpool, 22. Proposed by Professor Lionel B. Budden, L. H. Keay and Leonard Barnish.

BLACK: JAMES [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination], "Culloden," Albert Place, Airdrie, Lanarkshire. Proposed by William J. Smith, T. J. Beveridge and William Ross.

CARR: EDWARD RIDEHALGH [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], 32 Grosvenor Street, W.1. Proposed by Professor Lionel B. Budden, F. X. Velarde and Edward R. F. Cole.

CLOKEY: THOMAS [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], Messrs. Gunton & Gunton, J.3 Exchange Buildings, Liverpool, 2. Proposed by J. Ernest Marshall, Edward R. F. Cole and Professor Lionel B. Budden.

COLES: RONALD HENRY [Passed five years' course at the Leeds School of Architecture. Exempted from Final Examination], Alloma, Newlands Avenue, March, Cambridgeshire. Applying for nomination by the Council under the provisions of Byelaw 3 (d).

GILLING: MALCOLM GLYNN, Dip.Arch.(L'pool) [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], 13 Aigburth Drive, Sefton Park, Liverpool. Proposed by Professor Lionel B. Budden, Edward R. F. Cole and J. Ernest Marshall.

LUPTON: JOHN TENNISWOOD [Passed five years' course at the Leeds School of Architecture. Exempted from Final Examination], c/o Webster, 9 St. Martin's Street, W.C.2. Applying for nomination by the Council under the provisions of Byelaw 3 (d).

MELLOR: TOM [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], 12 Milner Road, Ansdell, Lytham

St. Annes. Proposed by Professor Lionel B. Budden, Edward R. F. Cole and Bernard A. Miller.

MONKS: LEE, Dip.Arch. [Passed five years' course at the School of Architecture, Victoria University, Manchester. Exempted from Final Examination], "Rossall," Higher Ainsworth Road, Radcliffe, Lancs. Proposed by Professor R. A. Cordingley, H. T. Seward and Francis Jones.

MONTGOMERY: THOMAS N. [Passed five years' course at the University College, Dublin. Exempted from Final Examination], 76 Merrion Square, Dublin. Proposed by Professor R. M. Butler, Professor Lionel B. Budden and Frederick G. Hicks.

MORRISSEY: WILLIAM OLIVER BERNARD, B.Arch. [Passed five years' course at the University College, Dublin. Exempted from Final Examination], 170 Camden Road, N.W.1. Proposed by Vincent Kelly, H. S. Goodhart-Rendel and H. Lewis Curtis.

NICOL: ARTHUR WYLLIE [Passed five years' course at the Architectural Association. Exempted from Final Examination], 11 Highpoint, North Hill, London, N.6. Proposed by R. Furneaux Jordan, G. A. Jellicoe and Maurice Chesterton.

PORRI: ARTHUR PIERRE [Passed five years' course at the Bartlett School of Architecture, University of London. Exempted from Final Examination], 6 Ripplevale Grove, Barnsbury, N.1. Proposed by H. O. Corfiato, Arthur George Porri and Alex. T. Scott.

PORRI: LOUIS ADRIAN, B.Sc. [Passed five years' course at the Bartlett School of Architecture, University of London. Exempted from Final Examination], 72 Ripplevale Grove, Barnsbury, N.1. Proposed by Professor A. E. Richardson, H. O. Corfiato and L. Stuart Stanley.

SEPHTON: JOHN DEAN, B.Arch.(L'pool) [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], 72 Bankfield Lane, Churchtown, Southport. Proposed by Professor Lionel B. Budden, Lionel A. G. Prichard and L. H. Keay.

VERDON: ROBERT BERNARD, B.Arch.(L'pool)Hons. [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination], "Brewery House," Talbot Road, Blackpool, Lancs. Proposed by Professor Lionel B. Budden, Edward R. F. Cole and J. Ernest Marshall.

AS LICENTIATES (7)

CHAPMAN: FREDERICK GEORGE, Architects' Department, London County Council, County Hall, S.E.1; 65 Pickhurst Lane, Hayes, Bromley, Kent. Proposed by E. G. Bax, Alfred H. Barnes and Edwin H. Williams.

COOPER: EDWARD PRIESTLEY, M.C., 3 Blake Street, York; 506 Hood House, Dolphin Square, S.W.1. Proposed by Sir Giles Gilbert Scott, Leslie T. Moore and J. Harold Gibbons.

DAVIDSON: PHILIP LOWTHIAN, 21 Station Road, Keswick, Cumberland; Brownrigg Manor Park, Keswick. Proposed by H. C. Mason and applying for nomination by the Council under the provisions of Byelaw 3 (d).

ELLIS: HUGH COLIN, 9 St. Mary Street, Swansea; 18 Maple Crescent, Uplands, Swansea. Proposed by Henry A. Ellis, O. S. Portsmouth and J. Herbert Jones.

FARQUHAR: ROWLAND EDWARD, Architects' Department, London County Council, County Hall, S.E.1; 42 Gondar Gardens, West Hampstead, N.W.6. Proposed by W. E. Brooks, H. B. Mackenzie and Edwin Williams.

JONES: JOHN FOX, 13 John Street, Bedford Row, W.C.1; 44 Willfield Way, N.W.11. Applying for nomination by the Council under the provisions of Byelaw 3 (d).

SMITH: GEORGE WILLIAM, 3 Winchester Street, South Shields; 5 Wansbeck Road, Jarrow-on-Tyne. Proposed by R. H. Morton, T. A. Page and W. B. Edwards.

ELECTION: 6 NOVEMBER 1939

In accordance with the terms of Byelaws 10 and 11, an election of candidates for membership will take place at the Council Meeting

to be held on Monday, 6 November 1939. The names and addresses of the overseas candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary R.I.B.A. not later than Monday, 6 November 1939.

AS FELLOWS (3)

COBB : ANDREW RANDALL, M.Sc. [A. 1929], Tramway Building, Halifax, Nova Scotia ; Bedford, Nova Scotia. Proposed by W. L. Somerville, John M. Lyle and Allan George.

GARDINER : KENNETH EDWARD FREDERICK [A. 1928], 34 Stanley House, Commissioner Street, Johannesburg ; Long Acre, Fricker Road, Illoko, Johannesburg. Proposed by Gordon Leith, T. S. Tait and Francis Lorne.

MACGILLIVRAY : IAN DONALD [A. 1929], Mutual Buildings, Bulawayo, Southern Rhodesia. Proposed by J. D. Robertson, D. MacGillivray and J. R. Hobson.

AS ASSOCIATES (6)

BIRCH : KENNETH STANLEY [Passed a qualifying Examination approved by the Institute of South African Architects], P.O. Box 3590, Johannesburg, South Africa. Proposed by Gordon Leith, A. J. Marshall and W. C. von Berg.

MISTRI : MINOCHER JAMSHEDJI PESTONJI [Passed five years' course at the Architectural Association. Exempted from Final Examination], Baimai Manzil, Nepean Sea Road, Bombay. Proposed by G. A. Jellicoe and the President and Hon. Secretary of the Architectural Association under the provisions of Byelaw 3 (b).

SINCLAIR : COLIN MACDONALD, B.Arch.(Rand) [Passed a qualifying Examination approved by the Institute of South African Architects], 52 Alliance Buildings, Johannesburg, South Africa. Proposed by D. M. Sinclair, D. M. Burton and Gordon Leith.

SINCLAIR : MRS. NORA HELENE, B.Arch.(Rand) [Passed a qualifying Examination approved by the Institute of South African Architects], 52 Alliance Buildings, Johannesburg, South Africa. Proposed by D. M. Sinclair, D. M. Burton and Gordon Leith.

STEWART : ANGUS GREIG [Passed a qualifying Examination approved by the Institute of South African Architects], 60-61 Alliance Buildings, Rissik Street, Johannesburg, South Africa. Proposed by D. M. Sinclair, D. M. Burton and Gordon Leith.

SMITH : JOHANNES ANTHONIE [Passed a qualifying Examination approved by the Institute of South African Architects], 17 Lewis Building, Keerom Street, Capetown. Proposed by Fred M. Glennie, H. J. Brownlee and Professor L. W. Thornton White.

AS LICENTIATES (17)

BATTEN : GEORGE, Reading.

BOND : LAWRENCE HENRY, Grantham.

BOSTOCK : HERBERT STANLEY.

BRANNEN : EDWARD WILFRED, M.M., Dornoch, Sutherland.

DAY : FREDERICK GEORGE.

GAMMANS : REGINALD ADOLPHUS NOWELL, Shoreham-by-Sea.

HOLLINS : WILLIAM EDWARD.

JAMES : FREDERICK WILLIAM, Narborough, Leicestershire.

MILLER : ALBERT ERNEST.

MOORE : ERNEST CLIFFORD, Wellingborough.

MURAS : ALBERT QUIN, Newcastle-upon-Tyne.

PESTER : GEORGE SAMUEL.

RANSOM : STANLEY FREDERICK.

ROBERTS : ARTHUR HENRY.

SEARLEY : FRANK JOHN.

STOCK : BERNARD HENRY.

WALLACE : ROBERT, Paisley.

Notices

EXHIBITION OF DRAWINGS SUBMITTED FOR THE ARCHIBALD DAWNAY SCHOLARSHIPS 1939

An exhibition of the drawings submitted for the Archibald Dawnay Scholarships 1939 will be held in the Reception Room at the R.I.B.A. from Thursday, 7 September to Saturday, 16 September 1939 inclusive, between the hours of 10 a.m. and 7 p.m. (Saturdays 10 a.m. and 2 p.m.).

BUILDING SURVEYING EXAMINATIONS

The R.I.B.A. Statutory Examination qualifying for candidature as District Surveyor in London and the R.I.B.A. Examination qualifying for candidature as Building Surveyor under Local Authorities will be held at the R.I.B.A. on 4, 5 and 6 October 1939. Applications for admission to the examinations must be received not later than 4 September 1939.

THE USE OF TITLES BY MEMBERS OF THE ROYAL INSTITUTE

In view of the passing of the Architects Registration Act 1938, members whose names are on the Statutory Register are advised to make use simply of the title "Chartered Architect" after the R.I.B.A. affix. The description "Registered Architect" is no longer necessary.

Members who are qualified for registration and have not already done so are reminded of the importance of applying for such registration without delay. Full particulars will be sent on application to the Secretary R.I.B.A.

ASSOCIATES AND THE FELLOWSHIP

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 4 December 1939 (overseas candidates 5 February 1940) they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 30 September 1939.

OVERSEAS APPOINTMENTS

When members are contemplating applying for appointments overseas they are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

Competitions

The Council and Competitions Committee wish to remind members and members of Allied Societies that it is their duty to refuse to take part in competitions unless the conditions are in conformity with the R.I.B.A. Regulations for the Conduct of Architectural Competitions and have been approved by the Institute.

While, in the case of small limited private competitions, modifications of the R.I.B.A. Regulations may be approved, it is the duty of members who are asked to take part in a limited competition to notify the Secretary of the R.I.B.A. immediately, submitting particulars of the competition.

This requirement now forms part of the Code of Professional Practice in which it is ruled that a formal invitation to two or more architects to prepare designs in competition for the same project is deemed a limited competition.

AUCKLAND, NEW ZEALAND: NEW CATHEDRAL

The General Trust Board of the Diocese of Auckland invite members of the New Zealand Institute of Architects resident in New Zealand or overseas to submit in competition designs for a new Cathedral.

Assessor: Sir Giles Gilbert Scott, R.A. [F.].

Premiums: £1,000, £400, £200 and £100.

Last day for submitting designs: 15 November 1939.

Last day for questions: 31 May 1939.

Conditions of the competition may be obtained on application to (a) The General Trust Board, P.O. Box 652, Auckland, New Zealand, or (b) The Secretary R.I.B.A., 66 Portland Place, London, W.1. Deposit £1 1s.

DUDLEY: NEW MIXED SENIOR SCHOOL

The County Borough of Dudley Education Committee invite architects with offices in Warwickshire, Worcestershire, Herefordshire, Shropshire and Staffordshire to submit in competition designs for a new mixed senior school to be erected on a site at Halesowen Road, Netherton.

Assessor: Mr. S. N. Cooke [F.].

Premiums: £150, £100 and £50.

Last day for submitting designs: 31 August 1939.

Last day for questions: 30 June 1939.

EDINBURGH: NEW EXHIBITION HALL

The Lord Provost, Magistrates and Council of the City of Edinburgh invite architects in association with consulting engineers, both resident in Great Britain, to submit in competition designs for an Exhibition Hall, to be erected on the site of the present Waverley Market, Princes Street, Edinburgh.

Assessor: Mr. Thomas S. Tait [F.].

Premiums: 500 guineas, 300 guineas and 200 guineas.

Last day for submitting designs: 31 August 1939.

Last day for questions: 15 February 1939.

GOSPORT: NEW SENIOR BOYS' SCHOOL

The Gosport Education Committee invite architects of British nationality to submit in competition designs for a new Senior School for 480 boys at Elson, Gosport.

Assessor: Mr. Julian Leathart [F.].

Premiums: £100, £50 and £25.

Last day for submitting designs: 11 November 1939.

Last day for questions: 19 August 1939.

Conditions of the competition may be obtained on application to Mr. Geo. R. Walker, Secretary to the Education Committee, Education Offices, Stoke Road, Gosport, Hants. Deposit £1 1s.

HUTTON, NEAR PRESTON, LANCs: NEW POLICE HEADQUARTERS

Owing to the death of Sir Percy Worthington, Mr. J. Hubert Worthington [F.] has been appointed to act as Assessor for this competition.

MARGATE: NEW CIVIC CENTRE

The Corporation of the Borough of Margate invite architects of British nationality who are members of the R.I.B.A. or its Allied Societies to submit in competition designs for a new Civic Centre to be erected on a site overlooking Hartsdown Park, Margate.

Assessor: Mr. A. F. B. Anderson [F.].

Premiums: £500, £300 and £200.

Last day for submitting designs: 31 August 1939.

Last day for questions: 31 March, 1939.

OLDHAM: NEW ELECTRICITY OFFICES

The Corporation of the County Borough of Oldham invite registered architects to submit in competition designs for new Offices and Departmental Buildings for the Electricity Department to be erected on a site in Union Street.

Assessor: Professor R. A. Cordingley [F.].

Premiums: £400, £250 and £100.

Last day for submitting designs: 4 October 1939.

Last day for questions: 5 June 1939.

Conditions of the competition may be obtained on application to Mr. F. L. Ogden, Borough Electrical Engineer, Greenhill Offices, Oldham. Deposit £2 2s.

WATFORD: NEW FIRE STATION

The Corporation of the Borough of Watford invite registered architects of British nationality to submit in competition designs for a new Fire Station.

Assessor: Mr. E. Maxwell Fry [F.].

Premiums: £150 and £75.

The last day for submitting designs has been extended to 16 September 1939.

Last day for questions: 14 July 1939.

Conditions of the competition may be obtained on application to The Town Clerk, Municipal Offices, Watford. Deposit £1 1s.

COMPETITION RESULTS

CONSETT, CO. DURHAM: NEW COUNCIL OFFICES

1. Messrs. E. D. Lyons [A.], L. Israel [A.] and C. H. Elsom [Student] (London).
2. Messrs. P. J. Westwood & Sons [F./AA.] (London).
3. Messrs. F. W. Liddle [F.] and Batchelor (Newcastle-upon-Tyne).

LAGOS: NEW SUPREME COURT

1. Mr. J. F. Watkins [L.] (London).
 2. Messrs. E. D. Lyons [A.], L. Israel [A.] and C. H. Elsom [Student] (London).
 3. Mr. J. L. Halliday [A.] (London).
- Commended: Messrs. Gordon B. Biggar [A.] and W. N. W. Ramsay (Glasgow); Mr. A. D. Connell [A.] (London).
- Mentioned: Mr. K. E. F. Gardiner [A.] (Johannesburg); Messrs. J. Perry & Lightfoot [F./A.] (Cape Town); Mr. Rolf Hellberg [A.] (Coventry); Mr. Herbert G. Bailey (London); Mr. James H. Ecclestone [A.] (London).

MEMBERS' COLUMN

Owing to limitation of space, notices in this column are restricted to changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and appointments vacant. Members are reminded that a column in the Advertisement Section of the Journal is reserved for the advertisements of members seeking appointments in architects' offices. No charge is made for such insertions and the privilege is confined to members who are definitely unemployed.

A list of members seeking positions with prospects of partnership is kept at the office of the R.I.B.A. and members who are desirous of having their names placed on this list are requested to send particulars of their qualifications, age, etc., to the Secretary R.I.B.A.

PARTNERSHIP WANTED

A.R.I.B.A., A.A. Dip. (32), requires position as Chief Assistant with view to partnership after a year or two. Some capital will be available. Nine years' practical experience in London and provinces. Position preferred with well-established architect in South of England.—Reply Box 3839, c/o Secretary R.I.B.A.

PARTNERSHIP AND SHARE IN OFFICE WANTED

ASSOCIATE, aged 33, with small but growing practice, desires to meet another Associate similarly placed to share office in London, with mutual assistance and view to partnership.—Reply Box 2979, c/o Secretary R.I.B.A.

COLLABORATION WANTED

AUSTRIAN architect, fully qualified, pupil of Adolf Loos, great experience of housing and flats, designed Viennese Municipality tenements, and now working in the office of distinguished English architect, seeks work with an English architect with possible view to partnership.—Apply Box 4839, c/o Secretary R.I.B.A.

CZECH architect, 33, fully qualified, would like to work with an English architect with view to partnership.—Apply F. Ost, 56 Lordship Park, N. 16.

OFFICE ACCOMMODATION TO LET

TO LET, panelled rooms in architect's office, West Central area, with built-in filing and drawing cupboards, £60 per annum. Share of secretarial services.—Apply Box 1479, c/o Secretary R.I.B.A.

A MEMBER has the following accommodation to let at 34 Millbank, S.W.1: 4 rooms on first floor, all *en suite*, oak panelled, £225 per annum; 3 rooms on second floor, principal room oak panelled, £185 per annum; rent for 7 rooms, £400 per annum; rates, heating and cleaning included. Offers would be considered. All the rooms are well lit and pleasant. The principal rooms overlook the river.—Apply Box 1979, c/o Secretary R.I.B.A.

OFFICE ACCOMMODATION WANTED

WANTED, share in architect's office (one room and telephone service).—Apply Box 2879, c/o Secretary R.I.B.A.

TWO ASSOCIATES commencing practice require rooms or share in office. Moderate rent. West End preferred.—Reply Box 2479, c/o Secretary R.I.B.A.

CHANGES OF ADDRESS

MR. ROLF JENSEN, B.Arch. (Liverpool) [A.], will be sailing on 11 August for Singapore, where he will be engaged for three years in work on the Naval base, in the Civil-Engineer-in-Chief's Department of the Admiralty.

PROFESSOR A. HAMILTON THOMPSON [Hon. A.] has moved to 7 Beaufort Mansions, London, S.W.3. Tel. Flax. 0960.

MESSRS. ROMAINE-WALKER & JENKINS (Gilbert H. Jenkins [F.] and G. Lawrence M. Jenkins [A.]) have moved their offices to 1A Middle Temple Lane, E.C.4 (Tel. Central 7273).

MR. A. L. HALL [A.] has removed from 52 Christchurch Road, S.W.2, to 128 Oakfield Road, Selly Park, Birmingham.

Architects' and Surveyors' Approved Society

ARCHITECTS' ASSISTANTS' INSURANCE FOR THE NATIONAL HEALTH AND PENSIONS ACTS

Architects' Assistants are advised to apply for the prospectus of the Architects' and Surveyors' Approved Society, which may be obtained from the Secretary of the Society, 113 High Holborn, London, W.C.1.

The Society deals with questions of insurability or the National Health and Pensions Acts (for England) under which, in general, those employed at remuneration not exceeding £250 per annum are compulsorily insurable.

In addition to the usual sickness, disablement and maternity benefits, the Society makes grants towards the cost of dental or optical treatment (including provision of spectacles).

No membership fee is payable beyond the normal Health and Pensions Insurance contribution.

The R.I.B.A. has representatives on the Committee of Management, and insured Assistants joining the Society can rely on prompt and sympathetic settlement of claims.

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66 PORTLAND PLACE, W.1

FOUNDED 1850

The object of the Society is to afford assistance to architects, architects' assistants, and their widows and children by means of grants and pensions.

Subscriptions and donations of any amount are urgently needed. An annual subscriber of £1 is entitled to recommend annually two applicants for relief.

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Members wishing to contribute notices or correspondence must send them addressed to the Editor not later than the Tuesday prior to the date of publication.

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